



Missouri Department of Transportation and  
Highway Patrol Employees' Retirement System

*A Component Unit of the State of Missouri*

2009

# Focused

on  
Your  
Retirement



Comprehensive Annual Financial Report  
For the Fiscal Year Ended June 30, 2009



Missouri Department of Transportation and  
Highway Patrol Employees' Retirement System

*A Component Unit of the State of Missouri*

2009

# Focused

on  
Your  
Retirement



Susie Dahl, Executive Director  
1913 William Street, PO Box 1930  
Jefferson City, MO 65102-1930  
(800) 270-1271, (573) 298-6080

Comprehensive Annual Financial Report  
For the Fiscal Year Ended June 30, 2009

# Dedicated to You, Our Members

The theme for this year's Comprehensive Annual Financial Report is "Focused on Your Retirement." Some people don't even think about retirement until they are within five or ten years of reaching that mile marker in life. Retirement decisions and needs are as individual as our members themselves. It's your retirement, your needs, your decisions, and your future.

Let's stop for a moment and think about the diversity of our members. From the big picture perspective, our members are the Missouri Department of Transportation (MoDOT) employees and the Missouri State Highway Patrol (MSHP) employees. From there, everyone becomes a unique individual with different financial goals.

MPERS' Board of Trustees and staff focus on your retirement by doing everything in their power to make sure your retirement benefits are available now and in the future.

Each member of the MPERS Board of Trustees has a fiduciary responsibility to you, its members. A fiduciary duty is a legal relationship of trust between parties, where one party is acting for the benefit of another. As guardians of the trust, each board member has a duty of loyalty, of prudence, and to follow plan documents. In such a relationship, good conscience requires trustees to act at all times for the sole benefit and interest of the plan participants.

Presently, MPERS has a funded ratio of 47.3%. This ratio is a very basic measure of the System's assets to its benefit liabilities. Today, we have about \$.47 of every dollar needed to pay benefits. The good news is that we have a long-term time horizon to accumulate the remainder of the money needed to pay the liabilities of the System. The MPERS Board of Trustees takes this underfunded status very seriously and is working toward a goal of being 100% funded. Achieving this goal will take time, increased contributions, enhanced investment returns, and possibly benefit changes for future members of the System.

There is no single reason for the funding shortfall. Most recently, the December 21st Wall Street Journal reported, "in nearly 200 years of recorded stock-market history, no calendar decade has seen such a dismal performance as the 2000s." Decisions made by multiple groups over the years regarding benefit increases, plan assumptions, contributions, and investment policies, coupled with the sharp market declines in the past decade have resulted in an unfunded liability of approximately \$1.6 billion.

When the System's funded status falls below 60%, state law requires our actuary to prepare an accelerated funding schedule for the Board's consideration. The accelerated funding schedule allows the unfunded liability (the employer's IOU to the System) to be paid off sooner. This is similar to making an extra mortgage payment on your house each year to reduce the loan period. In addition, paying more into the System today, so the money can be invested and earn investment proceeds, could ultimately reduce costs to the employers.

At the September 2009 board meeting, the Board recognized the urgency of addressing the funded status and voted to adopt the accelerated funding schedule as recommended by the actuary. The accelerated funding schedule provides an additional \$5 million per year, for 15 years, in contributions toward paying down the \$1.6 billion debt. The primary reason for adopting the shorter repayment schedule (15 years vs. the current 26 years) is that the 15-year time frame more closely matches the life expectancy of the retiree group.

As a beneficiary of the System, it is important for you to have an understanding of the financial status of your retirement system. The MPERS Board of Trustees, MPERS staff, and your employers (MoDOT and MSHP) remain focused on improving the funded status of the System and ensuring that the promises made to you by your employer and the State of Missouri are fulfilled.

We remain, focused on your retirement.



# MoDOT and Patrol Employees' Retirement System



## **Mailing Address**

PO Box 1930  
Jefferson City, Missouri 65102-1930

## **Street Address**

1913 William Street  
Jefferson City, Missouri 65109

## **Phone Numbers**

<i>Main Line</i>	<i>Toll Free</i>	<i>Office Directory</i>
(573) 298-6080	(800) 270-1271	(573) 298-6081

## **Fax Numbers**

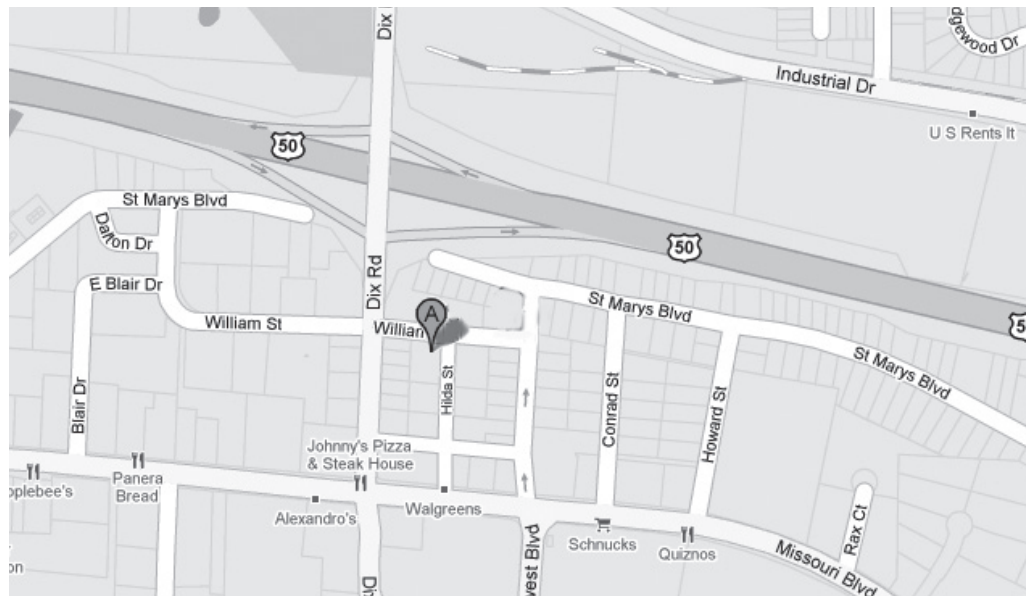
<i>Administrative</i>	<i>Benefits</i>
(573) 526-5895	(573) 522-6111

## **E-Mail Address**

[mpers@modot.mo.gov](mailto:mpers@modot.mo.gov)

## **WebSite**

[www.mpers.org](http://www.mpers.org)



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# Notes





# Focused on QUALITY



Introductory Section

# Certificate of Achievement for Excellence in Financial Reporting

## Certificate of Achievement for Excellence in Financial Reporting

Presented to

Missouri Department of  
Transportation and Highway Patrol  
Employees' Retirement System

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended  
June 30, 2008

A Certificate of Achievement for Excellence in Financial Reporting is presented by the Government Finance Officers Association of the United States and Canada to government units and public employee retirement systems whose comprehensive annual financial reports (CAFRs) achieve the highest standards in government accounting and financial reporting.



President

Executive Director



# Public Pension Coordinating Council Award



## **Public Pension Coordinating Council**

### ***Public Pension Standards Award For Funding and Administration 2008***

Presented to

### **Missouri Department of Transportation and Highway Patrol Employees' Retirement System**

In recognition of meeting professional standards for  
plan design and administration as  
set forth in the Public Pension Standards.

*Presented by the Public Pension Coordinating Council, a confederation of*

National Association of State Retirement Administrators (NASRA)  
National Conference on Public Employee Retirement Systems (NCPERS)  
National Council on Teacher Retirement (NCTR)

A handwritten signature in black ink, reading 'Alan H. Winkle'.

Alan H. Winkle  
Program Administrator



# Letter of Transmittal

Susie Dahl  
Executive Director



MoDOT & Patrol  
Employees' Retirement System

Pam Henry  
Assistant Executive Director

November 16, 2009

To the Board of Trustees and System Members:

We are pleased to present this Comprehensive Annual Financial Report (CAFR), of the Missouri Department of Transportation and Highway Patrol Employees' Retirement System (MPERS), for the fiscal year ended June 30, 2009.

The losses incurred during Fiscal Year 2009 represent the most significant losses in the fifty-four year history of the System. Despite a decline in the total value of MPERS' investment portfolio, our ability to pay promised retirement benefits remains in tact.

The financial stability offered by a defined benefit plan is a hallmark of the MPERS System. MPERS' retirees are guaranteed a lifetime monthly benefit regardless of how the financial markets perform. MPERS' benefit plan is established in the Missouri statutes and guaranteed by the Missouri constitution. Both the constitution and case law indicate that MPERS' accrued benefits may not be diminished or impaired.

#### **Report Contents and Structure:**

This CAFR is designed to provide MPERS' stakeholders with a thorough review of the System's operations for the past year. The material presented in this report has been prepared in a manner intended to be useful and informative to MPERS' members, the management of the Missouri Department of Transportation (MoDOT), the Missouri State Highway Patrol (Highway Patrol), and the elected officials of the State of Missouri.

To the best of our knowledge and belief, the information presented is accurate in all material respects and is reported in a manner designed to fairly present the financial position of the fund. MPERS' management is responsible for the accuracy and completeness of the information in this report. This report is also designed to comply with the reporting requirements of Sections 104.190, 104.1006 and 105.661 of the Revised Statutes of Missouri (RSMo), as amended.

#### **Background Information:**

MPERS was established by Senate Bill 66. Under this legislation, employees of MoDOT and the Highway Patrol became members of the retirement system on September 1, 1955. Effective October 1, 1955, the System accepted 109 retirements. The System initially provided retirement and disability benefits and required members to share in the cost of the plan.

The plan provisions have changed many times over the years. Today, at no cost to the employees, the System offers not only enhanced retirement and disability benefits, but also benefits for survivors of active and retired members, benefits for qualified terminated-vested members, and death benefits.

An eleven-member Board of Trustees is responsible for the oversight of MPERS. As an instrumentality of the state, MPERS is not subject to the state's legislative appropriations process. The System's administrative spending is governed by the Board-approved "internal" budget. MPERS' financial information is included in the state's CAFR as a component unit.

MPERS is considered a component unit of the state of Missouri for financial reporting purposes and, as such, the financial statements in this report are also included in the State of Missouri's Comprehensive Annual Financial Report.

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Website: [www.mpers.org](http://www.mpers.org) • E-Mail: [mpers@modot.mo.gov](mailto:mpers@modot.mo.gov)



# Letter of Transmittal

## **Fiscal Year 2009 Highlights:**

On the operations front, Fiscal Year 2009 was an extremely busy and rewarding year for MPERS.

MPERS continued implementation of a multiphase technology project (initiated in 2007). The project includes: 1) a new integrated accounting system, 2) an electronic document management (EDM) system, and 3) a new pension administration system (PAS). The technology upgrades ensure that MPERS has the ability to deliver quality service and benefits now and into the future. Among the many service enhancements, the new system will automate several processes required to produce benefit payments. By automating the routine monthly processes, staff will be able to spend additional time providing education and counseling to MPERS' members. One highlight of the new system is that it will allow members to access their retirement information through a secure portal. Members will be able to update personal information online, submit electronic forms, view service and salary information, and prepare benefit estimates.

The first two phases, a new accounting system and document imaging system, are complete and operational. Staff has been busy working on the final phase of the project, which is the largest and most complicated phase, involving the replacement of our existing legacy database with a new, state-of-the-art, server-based data management system. The overall project has a scheduled completion date of December 2009.

Over the past two years, this project has significantly increased the workload on staff as they continue to manage their daily duties in addition to the work of the project. Staff's commitment to ensuring a successful implementation has remained high during the entire multi-year project. We would like to take this opportunity to thank the Board for their support in this endeavor and the staff for their willingness to work so diligently to ensure the success of this project.

In an effort to facilitate the most efficient use of Board meeting time, and to streamline the decision making process, the Board implemented the following standing committees: 1) Governance Committee, 2) Budget Committee, 3) Investment Committee, and 4) Audit Committee. The committee structure allows trustees to develop expertise in specific areas, ensuring that the full Board can concentrate more on the "big picture". The committee's role is to examine and debate an issue and then prepare a recommendation for the full Board.

Also in 2009, the Board of Trustees tasked the Governance Committee to work with a governance consultant and the executive team to develop a comprehensive set of Board Governance Policies. These policies help ensure that the trustees maintain independence and remain informed with regard to the System. The policies also guide the Board in selecting and retaining competent management, establishing appropriate business objectives and operating policies, overseeing operations in compliance with laws and policies, evaluating the System's performance, and in assuring that the System meets the needs of members and is responsive to stakeholders. The policies are already yielding efficiencies and improving accountability.

This year staff was tasked with developing a formal board member orientation program for new trustees. The program, now implemented, is designed to cover education in the areas of duties and responsibilities of board members as trustees, ethics, governance processes and procedures, pension plan design and administration of benefits, investments and the fiduciary duties associated with the administration of the investments, legal liability and risks, sunshine law requirements, actuarial principles and methods, and the role of staff and consultants in plan administration.

In an effort to keep our members connected with what is happening at the Board meetings, MPERS staff is producing a comprehensive Board meeting summary. Because official Board meeting minutes cannot be posted until approved at the next Board meeting, they do not serve as a timely way to keep members up to date on Board actions. The summaries provide timely, valuable insight regarding the System and commentary to explain actions and topics addressed at each Board meeting.

## **Financial Information:**

This report has been prepared in accordance with generally accepted accounting principles for governmental accounting and reporting. To provide a reasonable assurance that the financial statements are free of any material misstatements, management has established internal controls.

In accordance with Section 104.190, RSMo, as amended, an independent auditing firm, Williams-Keepers, LLC,



# Letter of Transmittal

has audited the financial statements included in this report and has issued an unqualified opinion (meaning no audit findings on MPERS' financial statements). Their opinion letter is presented in the Financial Section of this CAFR. Management's Discussion and Analysis (MD&A) immediately follows the Independent Auditors' Report and provides a narrative introduction, overview, and analysis of the basic financial statements. MD&A complement this letter of transmittal and should be read in conjunction with it.

## **Actuarial Funding Status:**

The funding objective of MPERS is to meet future benefit obligations of retirees and beneficiaries through contributions and investment earnings. All funding from MoDOT and approximately 90% of funding from the Highway Patrol comes from the State Highway and Transportation Fund. Although Missouri, like most of the country, is facing tough economic times, the employers continue to provide the required contributions to fund the System.

During the year ended June 30, 2009, the funded ratio of MPERS, which covers 17,987 participants, decreased from 59.1% to 47.3%.

Each year an independent actuarial firm conducts an annual valuation to determine the actuarial soundness of the plan, based on its long-term obligations and the sufficiency of current contribution levels to fund the liabilities over a reasonable time frame. In our most recent valuation, dated June 30, 2009, our actuary concluded that the System continues to be financed in accordance with actuarial principles of level percent of payroll financing. This statement is based upon the fact that the employers are contributing to the System based upon actuarially determined rates and presumes a continuation of payment of actuarially determined contributions. Additional information regarding the financial condition of the System can be found in the Actuarial Section of this report.

In an effort to address the System's under funding situation, the Board of Trustees has developed a permanent funding policy that is intended to improve the funded status of MPERS over time. The funding policy provides that:

- The employers (MoDOT and Highway Patrol) will contribute at least the amount of contributions that the System's actuary annually calculates as the actuarially required contribution (ARC).
- The Board will amortize the liabilities of the fund over a period of 26 years.
- The Board will not support benefit increases until such time as the plan is at least 80% funded.

The Board has retained the System's actuary to conduct a benefit sustainability/design study to aid the Board in formulating a proactive position on plan design, costs, and sustainability issues. This action was taken as a result of the devastating investment losses that resulted from the market collapse during the fiscal year.

## **Investment Activities:**

State statutes require the System to make investments using the same care, skill, and diligence that a prudent person acting in a similar capacity would use. In fulfilling this obligation, the Board of Trustees has established a formal investment policy to clearly define the roles and responsibilities of the Board, staff and consultants, and to ensure that System assets are invested in a diversified portfolio following prudent investment standards. The Board of Trustees determines the broad asset allocation policies and return objectives of the plan, and retains investment staff, consultants, a master custodian and other advisors to implement and execute these policies.

FY 2009 was an extremely challenging year given the economic difficulties that started in the sub-prime housing market and spread globally across all financial sectors. Sectors that had historically provided diversification during challenging economic periods did not. Credit became difficult for firms to obtain and, as a result, equity prices suffered greatly. MPERS' FY 2009 return of -24.7% (net of fees) and the resulting asset losses of \$418.2 million will impact employer contributions for years to come unless the losses can be recouped.

The government stimulus programs helped to narrowly avert a collapse of the financial system. Currently, markets are stabilizing, credit is returning to qualified borrowers, and we have seen a substantial market rebound across most sectors from the lows set in March 2009. During the 3rd quarter of 2009, the MPERS'



# Letter of Transmittal

portfolio returned a positive 10.7%.

The Board of Trustees appointed an Investment Committee to review the System's asset allocation, the investment performance of both internal and external managers, and to assist with the development of investment policies and strategies. MPERS' investment staff continues to actively review the portfolio and to seek out investment opportunities created as a result of the market downturn. The Investment Section contains additional information regarding our investment performance.

## **Award and Acknowledgements:**

The Government Finance Officer Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to MPERS for its FY 2008 CAFR. This was the fourth consecutive year that MPERS has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized CAFR. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year. We believe that our current CAFR continues to meet the program's requirements, and therefore will be submitting it to GFOA to determine its eligibility for another certificate.

MPERS also received the Public Pension Coordinating Council's Public Pension Standards 2008 Award, in recognition of meeting professional plan design and administration standards. It is the fifth consecutive year in which MPERS applied for, and received, the council's award. The Public Pension Coordinating Council is a confederation of the National Association of State Retirement Administrators, the National Conference on Public Employee Retirement Systems, and the National Council on Teacher Retirement.

This report, prepared by MPERS staff, is intended to provide comprehensive and reliable information about the System, to demonstrate compliance with legal provisions, and to allow for the evaluation of responsible stewardship of the System's funds.

Copies of this report are provided to the Governor, the State Auditor, and the Joint Committee on Public Employee Retirement. It is also distributed to all MoDOT divisions, district offices, Highway Patrol general headquarters, and troop headquarters. These offices form the link between MPERS and its members, and their cooperation contributes significantly to the success of MPERS. We hope all recipients of this report find it informative and useful. Additional copies will be furnished upon request. For convenience, an electronic version of this report is available on the MPERS website at [www.mpers.org](http://www.mpers.org).

We express our gratitude to the members of the Board, the staff, the consultants, and the many people who have worked so diligently to assure the continued successful operation of MPERS.

Respectfully submitted,



Susie Dahl  
Executive Director



Mike Kehoe  
Board Chairman



# Board of Trustees

MPERS is governed by a Board of Trustees. As set out in Section 104.160 of the Revised Statutes of Missouri (RSMo), the Board is comprised of eleven members:



**Mike Kehoe**  
Board Chairman  
Highways & Transportation  
Commissioner  
Term Expires 3-1-2011



**Roger Stottlemire**  
Board Vice Chairman  
MSHP Retiree Representative  
Elected by Retired  
Members of MSHP  
Term expires 7-1-2010



**Sue Cox**  
MoDOT Employees'  
Representative  
Elected by MoDOT Employees  
Term Expires 7-1-2010



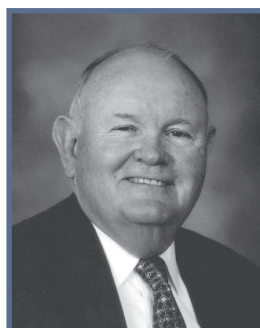
**Rudolph E. Farber**  
Commission Member  
Highways & Transportation  
Commissioner  
Term Expires 3-1-2013



**Senator John Griesheimer**  
State Senator  
District 26  
Appointed by  
President Pro-Tem of the Senate



**Colonel Jim Keathley**  
Superintendent of the  
Missouri State Highway Patrol  
Ex-Officio Member



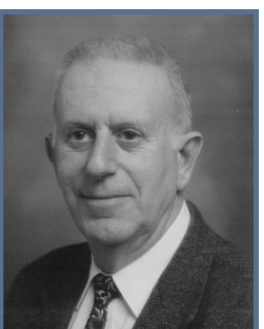
**Duane Michie**  
Commission Member  
Highways & Transportation  
Commissioner  
Term Expires 3-1-2009



**Pete Rahn**  
Director of the Missouri  
Department of Transportation  
Ex-Officio Member



**Representative Charlie Schlottach**  
State Representative  
District 111  
Appointed by the Speaker of the House



**Bob Sfreddo**  
MoDOT Retiree  
Representative  
Elected by Retired  
Members of MoDOT  
Term expires 7-1-2010



**Captain Juan Villanueva**  
MSHP Employees'  
Representative  
Elected by MSHP Employees  
Term Expires 7-1-2010



# Administrative Organization



**Susie Dahl – Executive Director**

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Keith Thornburg – General Counsel

Jennifer Even – Senior Financial Officer

Lois Wankum – Executive Assistant

Leigh Love – Office Assistant



**Pam Henry – Assistant Executive Director**

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Mariel Hale – Senior Benefit Specialist

Mary Jordan – Senior Benefit Specialist

Bev Wilson – Intermediate Benefit Specialist

Angel Backes – Intermediate Account Technician

Julie Berhorst – Intermediate Account Technician



**Larry Krummen – Chief Investment Officer**

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Jennifer Johnson – Senior Investment Officer

Our Mission is to provide a foundation for financial security to plan participants by delivering quality benefits and exceptional member service through professional plan administration and prudent management of assets, at a reasonable cost to the taxpayers of Missouri.



# Administrative Organization

## **Director's Office**

The Director's Office staff provides administrative oversight and support in the areas of legislation, operations, benefits, and investments.

## **Financial Services**

The Financial Services section is responsible for maintaining all the financial records of MPERS. The senior financial officer (accountant) interacts with the investment custodian, the auditors, the depository bank, Missouri's Department of Revenue, and the Internal Revenue Service. In addition, the accountant assists the chief investment officer in tracking and predicting target cash balances, participates in annual budget development, prepares monthly budget-to-actual reports, and calculates monthly premium payments to the long-term disability insurer. The accountant also processes MPERS' semi-monthly office payrolls, reconciles monthly benefit payments and contributions/payrolls posted, and reconciles investment activity.

## **Investments**

The Investments section works closely with the general investment consultant to oversee the investment portfolio and provide consulting services to the Board and the executive director. This includes, but is not limited to: (a) formulating investment policy and asset recommendations, (b) providing recommendations on the selection, (c) monitoring and evaluating external investment advisors, (d) measuring and reporting on investment performance, (e) conducting market research on political, financial, and economic developments that may affect the System, and (f) serving as a liaison to the investment community.

## **Legal Services**

The Legal Services section advises the executive director and Board on legal matters, reviews and approves investment and other contracts for MPERS, advises staff on the application of state and federal statutes affecting the administration of plan benefits, responds to requests from members and their attorneys related to plan benefits, engages in or oversees litigation affecting MPERS, and assists in developing policies, rules, and legislation impacting MPERS' operations and the administration of plan benefits.

## **Member Services**

The Member Services section consists of two units devoted to serving member needs.

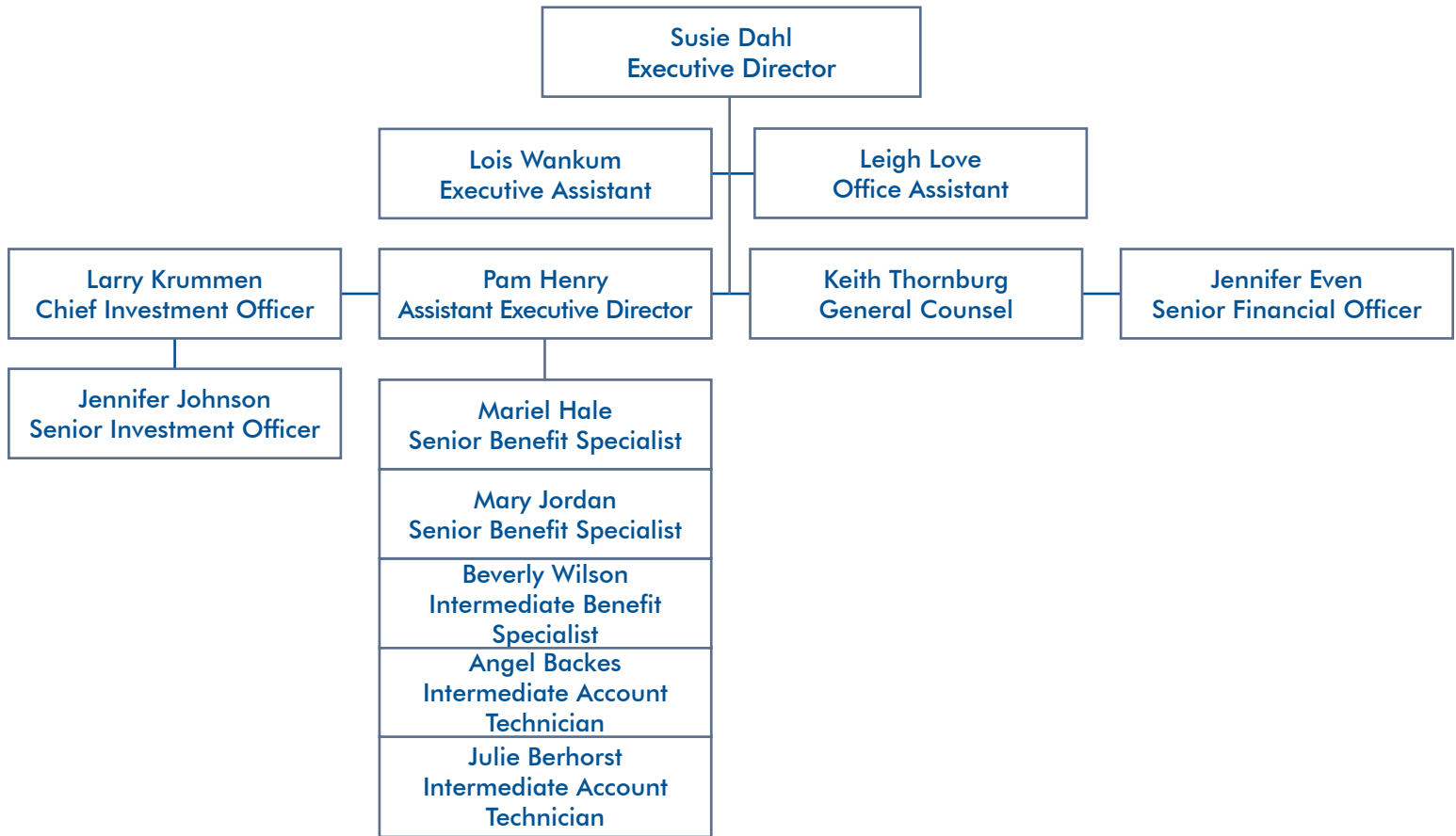
The Benefits Unit is responsible for contact with the membership regarding the benefit programs administered by MPERS, which include retirement and disability. The benefit staff is responsible for preparing and delivering the pre-retirement and benefit basics seminars in addition to assisting with the development of member communication material.

The Payroll Unit is responsible for establishing and maintaining all membership records including: (a) maintaining member data on the retirement master, (b) verifying retirement calculations, (c) balancing payroll deductions, (d) verifying SAM II data against exception reports, and (e) entering payroll, service, and leave data into the System's computerized database.



# Administrative Organization

The executive director of MPERS has charge of the offices and records of the System and hires such employees deemed necessary, subject to the approval of the Board of Trustees. The System employs thirteen full-time staff.



# Professional Services

The following firms were retained at fiscal year-end by the Board of Trustees to serve in professional capacities or provide consultant services. Please refer to pages 36 and 37 in the *Investment Section* for the *Schedule of Investment Expenses* and *Brokerage Commissions* for the investment professionals.

## Actuary

Gabriel, Roeder, Smith & Company  
Southfield, Michigan

## Legislative Consultant

James R. Moody and Associates  
Jefferson City, Missouri

## Auditor

Williams-Keepers, LLC  
Jefferson City, Missouri

## Master Trustee/Custodian

The Northern Trust Company  
Chicago, Illinois

## Business Consultant

MAXIMUS  
Waltham, Massachusetts

## Risk Management/Insurance Consultant

Charlesworth Benefits  
Overland Park, Kansas

The Standard Insurance Company  
Portland, Oregon

## Investment Consultant

Summit Strategies Group  
St. Louis, Missouri

## Governance Consultant

EnnisKnupp  
Chicago, Illinois



# Professional Services (continued)

## Investment Managers

Aberdeen Asset Management.....	Philadelphia, Pennsylvania
ABRY Partners .....	Boston, Massachusetts
Acadian Asset Management .....	Boston, Massachusetts
AEW Partners .....	Boston, Massachusetts
Albourne America .....	San Francisco, California
Algert Coldiron Investments (ACI) .....	San Francisco, California
American Infrastructure MLP.....	Foster City, California
Apollo Real Estate .....	New York, New York
AQR Capital Management .....	Greenwich, Connecticut
Artio .....	New York, New York
Audax Group .....	Boston, Massachusetts
Barclays Global Investors .....	San Francisco, California
Black River .....	Minnetonka, Minnesota
Brevan Howard .....	New York, New York
Bridgewater Associates.....	Westport, Connecticut
CBRE Investors .....	Baltimore, Maryland
Colony Capital.....	Los Angeles, California
Concordia.....	New York, New York
CQS Management .....	London England
CarVal Investors (CVI) .....	Minnetonka, Minnesota
Deephaven Capital Management .....	Minnetonka, Minnesota
EIF Management.....	Needham, Massachusetts
Enhanced Investment Technologies (INTECH) .....	Palm Beach Gardens, Florida
GMO .....	Boston, Massachusetts
Grove Street Advisors.....	Wellesley, Massachusetts
GSO Capital Partners.....	New York, New York
ING Clarion .....	New York, New York
Luxor Capital .....	New York, New York
Natural Gas Partners.....	Houston, Texas
Och-Ziff Real Estate .....	New York, New York
Ospraie Management .....	New York, New York
Paulson and Co. ....	New York, New York
Pinnacle Associates .....	New York, New York
Principal Global Investors .....	Des Moines, Iowa
RMK Timberland .....	Winston-Salem, North Carolina
Rothschild Asset Management .....	New York, New York
Silchester International Investors Limited .....	New York, New York
Stark Investments (Sheperd) .....	Milwaukee, Wisconsin
Structured Portfolio Management (SPM) .....	Stamford, Connecticut
Taconic Capital Advisors.....	New York, New York
The Northern Trust Company .....	Chicago, Illinois
Urdang .....	Plymouth Meeting, Pennsylvania
Vectis Healthcare .....	Boston, Massachusetts
Vicis Capital.....	New York, New York
Western Asset Management Company .....	Pasadena, California



# Notes





# Focused on STABILITY



Financial Section

# Independent Auditors' Report



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3220 West Edgewood, Ste. E, Jefferson City, MO 65109  
OFFICE (573) 635-6196 FAX (573) 644-7240

[www.williamskeepers.com](http://www.williamskeepers.com)

## INDEPENDENT AUDITORS' REPORT

The Board of Trustees  
Missouri Department of Transportation and  
Highway Patrol Employees' Retirement System

We have audited the accompanying statements of plan net assets of the Missouri Department of Transportation and Highway Patrol Employees' Retirement System (the System) as of June 30, 2009 and 2008, and the related statements of changes in plan net assets for the years then ended. These financial statements are the responsibility of the System's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with U.S. generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the plan net assets of the Missouri Department of Transportation and Highway Patrol Employees' Retirement System at June 30, 2009 and 2008, and the changes in plan net assets for the years then ended, in conformity with U.S. generally accepted accounting principles.

The management's discussion and analysis and the schedules of funding progress and employer contributions are not a required part of the basic financial statements but are supplementary information required by the Governmental Accounting Standards Board. The required supplementary information is the responsibility of management of the System. Limited procedures were applied by other auditors to the required supplemental information for the years ended June 30, 2005, 2004, and 2003. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the required supplementary information, for the years ended June 30, 2009, 2008 and 2007. However, we did not audit the information and express no opinion on it.

Our audits were made for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplementary information as listed within the Financial Section in the table of contents is presented for purposes of additional analysis and is not a required part of the basic financial statements of the System. Such information has been subjected to the auditing procedures applied in the audits of the financial statements and, in our opinion, is fairly stated in all material respects in relation to the financial statements taken as a whole.

The Introductory, Investment, Actuarial, and Statistical Sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we express no opinion on them.

*Williams - Keepers LLC*

November 16, 2009

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# Management's Discussion and Analysis

The management of the Missouri Department of Transportation and Highway Patrol Employees' Retirement System (the System, or MPERS) provides this discussion and analysis of the System's financial performance for the fiscal years ended June 30, 2009 and 2008. While this discussion is intended to summarize the financial status of MPERS, readers should consider this information in conjunction with the information that is furnished in the more detailed financial statements and corresponding notes.

## BASIC FINANCIAL STATEMENTS DESCRIPTIONS

As required by the Governmental Accounting Standards Board (GASB) accounting standards, this financial report consists of *Management's Discussion and Analysis* (this section), the basic financial statements (including notes to the basic financial statements), and other required supplementary information.

**Financial Statements** report information about MPERS, using accounting methods similar to those used by private-sector companies, by using the economic resources measurement focus and accrual basis of accounting. These statements provide both long-term and short-term information about the system's overall financial status. These statements follow this *Management's Discussion and Analysis* section:

- The *Statement of Plan Net Assets* includes all the System's assets and liabilities, with the difference between the two reported as net assets.
- The *Statement of Changes in Plan Net Assets* accounts for all the current year's additions (income) and deductions (expenses), regardless of when cash is received or paid.

**Notes to the Financial Statements** are included following the financial statements. The notes to the financial statements provide additional information that is essential for a full understanding of the data provided in the financial statements.

**Required Supplementary Information** follows the notes and further supports the information in the financial statements.

## ANALYSIS OF FINANCIAL POSITION AND RESULTS OF OPERATIONS

Overall, the financial position of MPERS weakened by \$497 million, reported as the "change in net assets." This is primarily a result of net depreciation in the fair value of investments for the year ended June 30, 2009. With this, the funded status of the plan showed a decrease of 11.82%.

The following schedules present summarized comparative data from the financial statements for the fiscal years ended June 30, 2009, 2008, and 2007. Following each schedule is a brief summary providing explanation and analyses of the major reasons for changes in the condensed financial statements.



# Management's Discussion and Analysis

## **Summarized Comparative Statements of Plan Net Assets**

	<b>As of June 30, 2009</b>	<b>As of June 30, 2008</b>	<b>As of June 30, 2007</b>	<b>% Change 2009/2008</b>	<b>% Change 2008/2007</b>
Cash and Receivables	\$ 9,940,482	\$ 39,325,100	\$ 17,500,118	-74.72%	124.71%
Investments	1,219,197,339	1,685,749,748	1,820,830,736	-27.68	-7.42
Invested Securities					
Lending Collateral	53,502,879	61,380,123	150,040,049	-12.83	-59.09
Capital Assets	1,659,247	1,577,452	627,378	5.19	151.44
Other Assets	8,535	7,889	4,820	8.19	63.67
<b>Total Assets</b>	<b>1,284,308,482</b>	<b>1,788,040,312</b>	<b>1,989,003,101</b>	<b>-28.17</b>	<b>-10.10</b>
Accounts Payable	8,299,374	7,889,473	13,752,874	5.20	-42.63
OPEB Obligation	182,305	94,440	0	93.04	100.00
Securities Lending Collateral	54,692,943	61,380,123	150,040,049	-10.89	-59.09
Long-Term Debt	0	1,226	5,889	-100.00	-79.18
<b>Total Liabilities</b>	<b>63,174,622</b>	<b>69,365,262</b>	<b>163,798,812</b>	<b>-8.92</b>	<b>-57.65</b>
<b>Total Net Assets</b>	<b>\$1,221,133,860</b>	<b>\$1,718,675,050</b>	<b>\$1,825,204,289</b>	<b>-28.95%</b>	<b>-5.84%</b>

The decrease in cash and receivables is primarily attributable to lower investment sales receivables as of June 30, 2009. These are normal fluctuations based on investment activity. The increase from FY07 to FY08 is also primarily due to these fluctuations.

The System's investments represent the main component (95%) of total assets. These investments include holdings of stock, government-sponsored enterprises, bonds, mortgages, real estate, timber, securities lending collateral, limited partnerships, and other fixed income investments. The decrease in fair value of investments as of June 30, 2009 is due to the unfavorable market conditions experienced during FY09. The FY09 investment return was -24.7%. Market conditions in FY08 were already beginning to show the unfavorable climate, as is shown by the decrease from the fair value amount of June 30, 2007 to that of June 30, 2008. The FY08 investment return was -2.41%. Detailed information regarding MPERS' investment portfolio is included in the *Investment Section* of this report.

The increase in capital assets for FY09 can be attributed to the ongoing technology project MPERS has in progress. Costs associated with the project are being capitalized. Two modules have been fully implemented and are now depreciable. The large increase in capital assets from FY07 to FY08 is also due to the technology project.

The largest component of liabilities is securities lending collateral. This represents the amount owed for collateral to be returned as the result of securities lent. The decrease in securities lending collateral from FY08 to FY09 is due to both a reduction in the lendable securities as MPERS increased its exposure to alternative investments, and to the general decrease in investment values from the market volatility. The exposure to alternative investments increased greatly from FY07 to FY08, which is reflected in the large decrease in securities lending collateral for that same time period. The corresponding securities lending collateral asset is valued at a slightly lower amount at June 30, 2009 due to the market value of the securities on loan being less than the par value. This was caused by the liquidity crisis that was one aspect of the overall market downturn in FY09.



# Management's Discussion and Analysis

The increase in accounts payable for FY09 is primarily attributable to larger investment purchases payables, which are normal fluctuations based on investment activity. The decrease from FY07 to FY08 is also primarily due to these fluctuations.

The OPEB obligation of \$182,305 at June 30, 2009 and \$94,440 at June 30, 2008 represents a liability recorded pursuant to GASB Statement No. 45, which was implemented in FY08. This liability reflects the system's provision of postemployment health care benefits through its participation in the MoDOT and MSHP Medical and Life Insurance Plan. As allowed by the GASB, this reporting requirement is being implemented prospectively, as prior years' data is not available. This plan is an internal service fund of MoDOT, therefore assets have not been set aside. With this, the increase from FY08 to FY09 is expected.

The System's combined net assets were \$1.221 billion at June 30, 2009, a \$498 million decrease from the \$1.719 billion at June 30, 2008. This decrease is larger than in the previous year, when net assets decreased \$106 million from the June 30, 2007 amount of \$1.825 billion to the June 30, 2008 amount of \$1.719 billion.

## **Summarized Comparative Statements of Changes in Plan Net Assets**

	<b>Year Ended June 30, 2009</b>	<b>Year Ended June 30, 2008</b>	<b>Year Ended June 30, 2007</b>	<b>% Change 2009/2008</b>	<b>% Change 2008/2007</b>
Contributions	\$ 123,043,301	\$ 124,527,678	\$ 121,794,458	-1.19%	2.24%
Net Investment Income/(Loss)	(426,265,311)	(42,915,886)	283,549,424	893.26	-115.14
Other Income	33,571	31,546	31,580	6.42	-0.11
Net Additions (Loss)	(303,188,439)	81,643,338	405,375,462	-471.36	-79.86
Benefits	192,013,250	185,801,362	175,970,479	3.34	5.59
Administrative Expenses	2,339,501	2,371,215	2,120,764	-1.34	11.81
Total Deductions	194,352,751	188,172,577	178,091,243	3.28	5.66
Change in Net Assets	(497,541,190)	(106,529,239)	227,284,219	367.05	-146.87
Net Assets-Beginning	1,718,675,050	1,825,204,289	1,597,920,070	-5.84	14.22
Net Assets-Ending	<b>\$1,221,133,860</b>	<b>\$1,718,675,050</b>	<b>\$1,825,204,289</b>	<b>-28.95%</b>	<b>-5.84%</b>

The main component of the changes in contributions to MPERS is employer contributions. For FY09, the contribution rate for the Uniformed Highway Patrol decreased by 2.39% from the FY08 rate, therefore decreasing the FY09 amount of employer contributions for that group from the FY08 amount. For FY08, the total covered payroll amount increased, thus increasing the employer contribution amounts for FY08 over the FY07 amounts, even with a lower contribution rate.

Net investment income/(loss), a primary component of plan additions, resulted in a loss of \$426 million for FY09. This 893% decrease from the FY08 net investment loss of \$42.9 million compounds the 115% decrease of the FY08 net investment loss down from the net investment gain of \$283.5 million in FY07. This loss represents a -24.7% return for the year ended June 30, 2009 and trails the rate of return of both the policy benchmark and peer groups. In comparison, the FY08 investment return was a -2.41%, but still exceeded the average public pension plan return of -4.44% for that period. Annual fluctuations within the broad investment markets are outside of the control of the System and are expected to fluctuate from year to year. The Board of Trustees has approved a diversified asset allocation that, over time, is expected to realize the assumed actuarial rate of investment return of 8.25%. Additional information regarding investments can be found in the *Investment Section* of this report.

Benefits increased primarily due to changes in benefit rolls for all of the years shown. Detailed schedules of changes can be found in the *Actuarial Section* of this report.



# Management's Discussion and Analysis

## CURRENTLY KNOWN FACTS AND RECENT EVENTS

Based on the June 30, 2008 actuarial valuation, the Board of Trustees approved a change in the required state contribution, effective July 1, 2009. The rate applied to non-uniformed payroll (MoDOT, civilian patrol, and MPERS) will increase from 30.72% to 31.40%. The rate applied to uniformed patrol payroll will decrease from 40.22% to 39.95%.

Based on the June 30, 2009 actuarial valuation, the Board of Trustees approved an increase in the required state contribution, effective July 1, 2010. The rate applied to non-uniformed payroll (MoDOT, civilian patrol, and MPERS) will increase from 31.40% to 39.46%. The rate applied to uniformed patrol payroll will increase from 39.95% to 49.53%. This increase is a reflection of the unfavorable investment returns in FY09 and FY08.

## CONTACTING THE RETIREMENT SYSTEM'S MANAGEMENT

This financial report is designed to provide a general overview of the System's finances. Questions about this report or requests for additional financial information should be sent to:

MoDOT and Patrol Employees' Retirement System  
PO Box 1930  
Jefferson City, MO 65102-1930



# Statements of Plan Net Assets

As of June 30, 2009 and 2008

	2009	2008
<b>ASSETS:</b>		
Cash	\$ (37,805)	\$ 109,911
Receivables		
Contributions	5,121,789	5,013,742
Accrued Interest and Income	2,255,682	4,209,347
Investment Sales	2,576,661	29,847,819
Other	24,155	144,281
Total Receivables	<u>9,978,287</u>	<u>39,215,189</u>
Investments, at Fair Value		
Stocks and Rights/Warrants	424,420,149	636,972,401
Government Obligations	28,679,154	26,587,158
Corporate Bonds	28,950,524	25,275,326
Real Estate	117,777,908	181,831,915
Mortgages and Asset-Backed Securities	81,703,695	118,328,739
Absolute Return	198,823,009	317,131,112
Tactical Fixed Income	62,165,864	81,211,799
Short-Term Investments	88,936,234	120,927,501
Venture Capital & Partnerships	187,740,802	177,483,797
Total Investments	<u>1,219,197,339</u>	<u>1,685,749,748</u>
Invested Securities Lending Collateral	53,502,879	61,380,123
Prepaid Expenses	8,535	7,889
Capital Assets		
Land	84,000	84,000
Building	581,619	581,619
Furniture, Equipment and Software	1,318,357	1,145,599
Accumulated Depreciation	<u>(324,729)</u>	<u>(233,766)</u>
Net Capital Assets	<u>1,659,247</u>	<u>1,577,452</u>
<b>TOTAL ASSETS</b>	<b>1,284,308,482</b>	<b>1,788,040,312</b>
<b>LIABILITIES:</b>		
Capital Lease	0	1,226
Accounts Payable	1,102,578	2,288,052
OPEB Obligation	182,305	94,440
Security Lending Collateral	54,692,943	61,380,123
Investment Purchases	<u>7,196,796</u>	<u>5,601,421</u>
<b>TOTAL LIABILITIES</b>	<b>63,174,622</b>	<b>69,365,262</b>
<b>NET ASSETS HELD IN TRUST FOR PENSION BENEFITS</b>	<b><u>\$1,221,133,860</u></b>	<b><u>\$1,718,675,050</u></b>

See accompanying Notes to the Financial Statements.



# Statements of Changes in Plan Net Assets

For the Years Ended June 30, 2009 and 2008

	2009	2008
<b><u>ADDITIONS:</u></b>		
Contributions-Employer	\$ 122,599,301	\$ 123,335,151
Contributions-Other	444,000	1,192,527
Total Contributions	123,043,301	124,527,678
Investment Income from Investing Activities		
Net Appreciation (Depreciation) in Fair Value of Investments	(427,918,465)	(39,140,460)
Interest and Dividends	20,639,463	23,442,831
Less: Investment Expenses	(19,379,111)	(27,631,771)
Net Investment Income (Loss)	(426,658,113)	(43,329,400)
Investment Income from Securities Lending Activities		
Security Lending Gross Income	701,752	3,848,348
Less: Investment Expenses	(308,950)	(3,434,834)
Net Investment Income	392,802	413,514
Other Income	33,571	31,546
<b>NET ADDITIONS (LOSS)</b>	<b>(303,188,439)</b>	<b>81,643,338</b>
<b><u>DEDUCTIONS:</u></b>		
Monthly Benefits	192,013,250	185,801,362
Administrative Expenses	2,339,501	2,371,215
<b>TOTAL DEDUCTIONS</b>	<b>194,352,751</b>	<b>188,172,577</b>
NET INCREASE (DECREASE)	(497,541,190)	(106,529,239)
<b>NET ASSETS HELD IN TRUST FOR PENSION BENEFITS</b>		
Beginning of Year	<u>1,718,675,050</u>	<u>1,825,204,289</u>
End of Year	<u>\$1,221,133,860</u>	<u>\$1,718,675,050</u>

See accompanying Notes to the Financial Statements.



# Notes to the Financial Statements

For the Years Ended June 30, 2009 and 2008

## NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

As established under Section 104.020, the Missouri Department of Transportation and Highway Patrol Employees' Retirement System (MPERS) is a body corporate and an instrumentality of the State of Missouri. Due to the nature of MPERS reliance on funding from the Missouri Department of Transportation (MoDOT) and the Missouri State Highway Patrol (MSHP) and control of the overall plan document by the legislative and executive branches of state government, MPERS is considered a part of the State of Missouri financial reporting entity and is included in the state's financial reports as a component unit shown as a pension trust fund.

### **Note 1 (a) - Basis of Accounting**

The financial statements were prepared using the accrual basis of accounting. Contributions are due to MPERS when employee services have been performed and paid. Contributions are recognized as revenues when due, pursuant to statutory requirements. Benefits are recognized when due and payable and expenses are recorded when the corresponding obligations are incurred. Dividend income is recognized when dividends are declared. Interest income is recognized when earned.

### **Note 1 (b) - Method Used to Value Investments**

Investments are reported at fair value on a trade date basis. Bonds and stocks traded on a national or international exchange are valued at the reported sales price at current exchange rates. Mortgages are valued on the basis of future principal and interest payments, and are discounted at prevailing interest rates for similar instruments. The fair value of real

estate and timber investments are based on net asset value estimates provided by the general partners' administrators or portfolio managers, which are compared to independent appraisals. Investments that do not have an established market are reported at estimated fair value. The fair value of the absolute return, venture capital and partnership portfolios are based on valuations of the underlying companies as reported by the general partner or portfolio manager.

### **Note 1 (c) - Capital Assets**

MPERS capitalizes assets with an expected useful life greater than one year and a cost greater than \$1,000. Capital assets are depreciated on the straight-line method over the estimated useful lives of the related assets. The estimated useful lives are as follows:

Furniture, Equipment and Software	5 – 10 years
Building and Improvements	30 years

### **Note 1 (d) - Use of Estimates**

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

## NOTE 2 – PLAN DESCRIPTIONS AND CONTRIBUTION INFORMATION

MPERS, established under Section 104.020, is a body corporate and an instrumentality of the state as a multiple-employer, public employee retirement system with one plan that has two benefit structures known as the Closed Plan and the Year 2000 Plan. The plan provides retirement, survivor, and disability benefits for employees of MoDOT, MSHP, and MPERS staff. The plan is administered in accordance with the requirements of a cost sharing, multiple-employer, public employee retirement plan under the Revised Statutes of Missouri. In MPERS are vested the powers

and duties specified in sections 104.010 to 104.312, 104.601 to 104.805, and 104.1003 to 104.1093, RSMo., and such other powers as may be necessary or proper to enable it, its officers, employees, and agents to carry out fully and effectively all the purposes outlined pursuant to these sections. Responsibility for the operation and administration of the System is vested in the Board of Trustees. Detailed information regarding contributions can be found in Note 5.



# Notes to the Financial Statements

For the Years Ended June 30, 2009 and 2008

## **Membership in the Closed and Year 2000 Plan as of June 30**

	<b>2009</b>		<b>2009</b>	<b>2008</b>
	<b>Closed</b>	<b>Year 2000</b>	<b>Total</b>	<b>Total</b>
Retirees, Beneficiaries, and Disabilities				
Currently Receiving Benefits	5,103	2,377	7,480	7,345
Terminated Employees Entitled to But Not Yet Receiving Benefits	1,590	147	1,737	1,689
Active Employees				
Vested	5,006	2,329	7,335	6,436
Non-Vested	0	1,478	1,478	2,145
<b>Total Membership</b>	<b>11,699</b>	<b>6,331</b>	<b>18,030</b>	<b>17,615</b>

### **Closed Plan Description**

Employees covered by the Closed Plan are fully vested for benefits upon receiving five years of creditable service. Under the Closed Plan, MoDOT and civilian employees may retire with full benefits upon the earliest of attaining:

- Age 65 with 4 or more years of creditable service (active);
- Age 65 with 5 or more years of creditable service (terminated & vested);
- Age 60 with 15 or more years of creditable service (active or terminated & vested); or
- "Rule of 80" – at least age 48 with sum of member's age and service equaling 80 or more (active or terminated & vested).

The following provisions apply for uniformed patrol members of the Closed Plan:

- Age 55 with 4 or more years of creditable service (active);
- Age 55 with 5 or more years of creditable service (terminated & vested);
- "Rule of 80" – at least age 48 with sum of member's age and service equaling 80 or more (active or terminated & vested); or
- Mandatory retirement at age 60 (active).

All non-uniformed members may retire early, with reduced benefits, at age 55 with at least 10 years of creditable service.

The base benefit in the Closed Plan is equal to 1.6%

multiplied by the final average pay multiplied by years of creditable service. For members of the uniformed patrol, the base benefit is calculated by applying the same formula, then multiplying the product by 1.333333.

Retired uniformed members will receive an additional benefit of \$90 per month, plus cost-of-living adjustments (COLAs), until attainment of age 65. This payment, however, is reduced by any amount earned during gainful employment. This benefit is not available to uniformed members hired after January 1, 1995.

For members employed prior to August 28, 1997, COLAs are provided annually based on 80% of the change in the consumer price index for all urban consumers for the United States (CPI-U). The minimum rate is 4% and the maximum rate is 5%, until the cumulative amount of COLAs equals 65% of the original benefit. Thereafter, the 4% minimum rate is eliminated and the annual COLA rate will be equal to 80% of the increase in the CPI-U (annual maximum of 5%). For members employed on or after August 28, 1997, COLAs are provided annually based on 80% of the increase in the CPI-U, up to a maximum rate of 5%.

The BackDROP is a payment option that is available to eligible members upon retirement. This option provides for a benefit to be calculated as if the member elected to retire at a previous date. If the BackDROP is elected, the monthly benefit payable on



# Notes to the Financial Statements

For the Years Ended June 30, 2009 and 2008

the actual retirement date is based on the benefit that would have been received by the member had he/she left employment and retired on the BackDROP date. In addition, the member will receive a lump sum payment equal to 90% of the life income annuity amount the member would have received during the BackDROP period. This lump sum amount includes any COLAs and other benefit increases; also, credit will be received for the unused sick leave balance as of the date of retirement.

The life income annuity payment option (which contains no provision for survivorship) and the life income with 60 or 120 month guaranteed payment options are available to all members. Joint and 50% or 100% survivor options are available if married at the time of retirement. In the Closed Plan, the reduction for the joint & 100% survivor option is based on the difference between the age of the member and the survivor. There is no reduction for the joint and 50% survivor option.

If a reduced joint and survivor option is chosen at the time of retirement and the spouse precedes the member in death, the benefit will revert back (pop-up) to a normal annuity.

Members may name a new spouse as beneficiary if:

- They were single at retirement and since married;
- They elected a spouse option at the time of retirement, the spouse preceded the member in death, and then a remarriage occurred.

The member has one year from the date of marriage to re-elect and name a new spouse.

All members who retire from active employment or long-term disability, or begin receiving normal or work-related disability benefits, on or after September 28, 1985, are provided a \$5,000 death benefit payable to designated beneficiaries.

## **Year 2000 Plan Description**

Employees covered by the Year 2000 Plan are fully vested for benefits upon earning five years of creditable service. Under the Year 2000 Plan, MoDOT and civilian employees may retire with full benefits upon the earliest of attaining:

- Age 62 and with 5 or more years of creditable service (active or terminated & vested);
- "Rule of 80" – at least age 48 with sum of member's age and service equaling 80 or more (active or terminated & vested).

The following provisions apply for uniformed patrol members of the Year 2000 Plan:

- "Rule of 80" – at least age 48 with sum of member's age and service equaling 80 or more (active or terminated & vested);
- Mandatory retirement at age 60 with 5 or more years of creditable service (active only).

All members may retire early with reduced benefits at age 57 with at least 5 years of creditable service.

The base benefit in the Year 2000 Plan is equal to 1.7% multiplied by the final average pay multiplied by years of creditable service. Members retiring under the Rule of 80, and uniform patrol members retiring at the mandatory retirement age (currently 60) with five years of creditable service, receive an additional temporary benefit until age 62. The temporary benefit is equivalent to 0.8% multiplied by final average pay multiplied by years of creditable service.

COLAs are provided annually based on 80% of the change in the CPI-U, up to a maximum rate of 5%.

The BackDROP is a payment option that may be available to members upon retirement. This option provides for a monthly benefit to be calculated as if the member elected to retire at a previous date. If the BackDROP is elected, the monthly benefit payable on the actual retirement date is based on the benefit that would have been received by the member had he/she left employment and retired on the BackDROP



# Notes to the Financial Statements

For the Years Ended June 30, 2009 and 2008

date. In addition, the member will receive a lump sum payment equal to 90% of the life income annuity amount the member would have received during the BackDROP period. This lump sum amount includes any temporary benefits, COLAs and other benefit increases; also, credit will be received for the unused sick leave balance as of the date of retirement.

The life income annuity payment option (with no provision for survivorship) and the life income with 120 or 180 months guaranteed payment options are available to all members. Joint and 50% or 100% survivorship options are available if married at the time of retirement. The reduction for the joint and 50% or 100% survivor options is based on the member's age at retirement, as well as the age difference between the member and the survivor.

If a reduced joint and survivor option is chosen at the time of retirement and the spouse precedes the member in death, the benefit will revert back (pop-up) to a normal annuity.

Members may name a new spouse for survivor benefits if:

- They were single at retirement and since married;
- They elected a spouse option at the time of retirement, the spouse preceded the member in death, and then a remarriage occurred.

The member has one year from the date of marriage to re-elect the payment option and name a new spouse.

All members who retire from active employment or long-term disability, or begin receiving work-related disability benefits, on or after July 1, 2000, are provided a \$5,000 death benefit payable to designated beneficiaries.

## **Contributions**

Contributions are determined through annual actuarial valuations. Administrative expenses are financed through contributions from MoDOT, MSHP and MPERS, and investment earnings.

MoDOT, MSHP and MPERS are required to make all contributions to the plan. Prior to August 13, 1976, contributions by members were required. Accumulated employee contributions made prior to that time, plus interest, were refunded to applicable members. Maximum contribution rates were eliminated August 13, 1976.

## **Schedule of Funded Status and Funding Progress**

Actuarial Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) Entry Age (b)	Unfunded AAL (UAAL) (b-a)	Percent Funded (a/b)	Annual Covered Payroll (c)	UAAL Percentage of Covered Payroll ((b-a)/c)
6/30/2009	\$1,471,496,660	\$3,113,393,645	\$1,641,896,985	47.26%	\$379,590,273	432.54%

The Schedules of Funding Progress, presented as required supplementary information (RSI) following the Notes to the Financial Statements, present multiyear trend information about whether the

actuarial values of plan assets are increasing or decreasing over time relative to the actuarial accrued liabilities for benefits.



# Notes to the Financial Statements

For the Years Ended June 30, 2009 and 2008

## **Additional Information as of the June 30, 2009 Actuarial Valuation Follows:**

Valuation Date	6/30/2009
Actuarial Cost Method	Entry age
Amortization Method	Level percent closed
Remaining Amortization Period	24 years*
Asset Valuation Method	3-year smoothed market
Actuarial Assumptions:	
Investment Rate of Return	8.25%
Projected Salary Increases	3.75% to 11.75%
COLAs	2.6% Compound
Price Inflation	3.25%

\*single equivalent period

## NOTE 3 – DEPOSITS AND INVESTMENTS

The Board of Trustees has established policies and procedures by which funds are invested by bank custodians and investment managers. Section 104.150, RSMo, provides the authority for the board to invest MPERS funds.

### **Note 3 (a) - Deposit and Investment Risk Policies**

#### ***Concentration of Credit Risk***

Concentration of credit risk is the risk of loss attributed to the magnitude of the System's investment in a single issuer. Unless authorized under a separate Investment Management Agreement, it is the policy of the System to limit each equity manager to investing a maximum of 5% of the market value of their portfolio in any single company and to limit fixed income managers to investing 3% of their portfolio into obligations of a single corporation. Fixed income obligations of the U.S. Government or U.S. Government agencies may be held in any amounts.

#### ***Investment Custodial Credit Risk***

Custodial credit risk is an investment risk in that, in the event of the failure of the counterparty to a transaction, the System will not be able to recover the value of its investment or the collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the System, and are held by either:

a) the counterparty or b) the counterparty's trust department or agent but not in the System's name. It is the policy of the System to require that all investments be clearly marked as to ownership and, to the extent possible, shall be registered in the name of the System.

#### ***Cash Deposit Custodial Credit Risk***

Cash deposit custodial credit risk is the risk that, in the event of the failure of depository financial institution, the System will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party. Missouri state law requires that all public funds must be collateralized with acceptable securities having market values of at least 100% of the amount of funds on deposit (less any amount covered by FDIC insurance).

#### ***Interest Rate Risk***

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The System does not have a formal investment policy that limits investment maturities as a means of managing its exposure to interest rates. Interest rate risk is most prevalent within the fixed income allocation, where the Board of Trustees has set a target allocation equal to 32% of System assets. All such items are reported at fair value on the Statement of Plan Net Assets.



# Notes to the Financial Statements

For the Years Ended June 30, 2009 and 2008

## **Investment Credit Risk**

Investment credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. Unless authorized under a separate Investment Management Agreement, it is the policy of the System to limit fixed income managers to purchasing securities that possess a minimum credit rating of "Baa" by Moody's and "BBB" by Standard & Poor's. Issues subsequently downgraded below these ratings must be brought to the attention of the Chief Investment Officer.

## **Foreign Currency Risk**

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. The System is subjected to foreign currency risk through its exposure to fixed income and equity investments that are denominated in a foreign currency. While a certain amount of this exposure is desired for diversification purposes, the System's investment policy does allow its managers to utilize currency futures for defensive (hedging) purposes if deemed to be in the best interest of the System. The Board of Trustees has set a target allocation to international equities of 22.5% as reflected in the System's investment policy.

## **Note 3 (b) - Cash Deposits**

Cash balances include short-term securities held by the custodial bank to meet future obligations and operating balances held by the depository bank. As of June 30, 2009 and 2008, MPERS had carrying amount of deposits of (\$1,010,573) and (\$1,775,075), respectively, and a bank balance of \$195 and \$191, respectively. The FDIC covered the bank balances. To maximize investment income, cash is invested in overnight repurchase agreements, thus causing the negative cash amounts disclosed above. The balances in these repurchase agreements for 2009 and 2008 were \$972,768 and \$1,884,986 respectively. As of June 30, 2009 and 2008, no investments were held as repurchase agreements that were uninsured or unregistered, with securities held by the counter party or by its trust department or agent but not in MPERS' name.

## **Note 3 (c) - Concentrations**

No investments in any one organization (other than those issued or sponsored by the U.S. government and those in pooled investments) represent five percent of plan net assets

## **Note 3 (d) - Investments**

### **Summary of Investments by Type at June 30**

	2009		2008	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
Government Obligations	\$ 28,430,454	\$ 28,679,154	\$ 26,538,237	\$ 26,587,158
Corporate Bonds	29,095,987	28,950,524	27,272,422	25,275,326
Stock and Rights/Warrants	547,597,353	424,420,149	611,161,204	636,972,401
Real Estate	125,386,480	117,777,908	131,021,239	181,831,915
Mortgages & Asset-Backed Securities	119,653,947	81,703,695	118,242,996	118,328,739
Absolute Return	200,635,359	198,823,009	281,149,107	317,131,112
Tactical Fixed Income	55,550,421	62,165,864	72,039,119	81,211,799
Venture Capital & Partnerships	236,917,341	187,740,802	186,263,816	177,483,797
Short-Term Investments	90,683,894	89,909,002	122,764,003	122,812,487
Securities Lending Collateral	53,502,879	53,502,879	61,380,123	61,380,123
<b>Total Investments</b>	<b>\$1,487,454,115</b>	<b>\$1,273,672,986</b>	<b>\$1,637,832,266</b>	<b>\$1,749,014,857</b>

### **Reconciliation to Statement of Plan Net Assets:**

Less: Repurchase Agreements	(972,768)	(1,884,986)
Less: Securities Lending Collateral	(53,502,879)	(61,380,123)
<b>Investments per Statement of Plan Net Assets</b>	<b>\$1,219,197,339</b>	<b>\$1,685,749,748</b>



# Notes to the Financial Statements

For the Years Ended June 30, 2009 and 2008

## **Note 3 (e) – Investment Interest Rate Risk**

The following table summarizes the maturities of government obligations, corporate bonds,

convertible corporate bonds, mortgages, asset-backed securities, and tactical fixed income which are exposed to interest rate risk.

## **Summary of Weighted Average Maturities**

Investment Type	Fair Value	Investment Maturities (in years) as of 6/30/2009			
		Less than 1	1 - 5	6 - 10	More than 10
Asset-Backed Securities	\$ 1,543,488	\$ 0	\$ 261,390	\$ 0	\$ 1,282,098
Commercial Mortgage-Backed Securities	54,720,941	0	0	0	54,720,941
Corporate Bonds	28,950,524	420,606	7,833,412	12,992,687	7,703,819
Corporate Convertible Bonds	1,760,230		1,259,730		500,500
Government Agencies	163,769	0	0	163,769	0
Government Bonds	24,291,087	0	471,711	2,670,261	21,149,115
Government Mortgage-Backed Securities	25,439,266	0	0	538,915	24,900,351
Municipal/Provincial Bonds	4,224,297	0	0	957,550	3,266,747
Total	141,093,602	<b>\$420,606</b>	<b>\$9,826,243</b>	<b>\$17,323,182</b>	<b>\$113,523,571</b>
Pooled Investments	62,165,864				
<b>Grand Total</b>	<b>\$203,259,466</b>				



# Notes to the Financial Statements

For the Years Ended June 30, 2009 and 2008

## **Note 3 (f) – Investment Credit Ratings**

The following table summarizes the credit ratings of the government obligations, corporate bonds, mortgages and asset-backed securities, and tactical fixed income on the *Statement of Plan Net Assets*.

### **Summary of Credit Ratings**

<b>Investment Type</b>	<b>Quality Rating</b>	<b>6/30/2009 Fair Value</b>	<b>6/30/2008 Fair Value</b>
Asset-Backed Securities	A	\$ 283,412	\$ 0
Asset-Backed Securities	AA	0	747,805
Asset-Backed Securities	AAA	836,577	841,558
Asset-Backed Securities	not rated	423,498	0
Commercial Mortgage-Backed Securities	A-	439,729	2,764,235
Commercial Mortgage-Backed Securities	A	295,305	2,213,260
Commercial Mortgage-Backed Securities	A+	958,911	4,629,826
Commercial Mortgage-Backed Securities	AA-	589,581	2,209,324
Commercial Mortgage-Backed Securities	AA	5,283,682	10,806,896
Commercial Mortgage-Backed Securities	AA+	1,991,751	6,013,150
Commercial Mortgage-Backed Securities	AAA	30,232,450	56,826,193
Commercial Mortgage-Backed Securities	BB	894,322	0
Commercial Mortgage-Backed Securities	BBB-	482,398	132,918
Commercial Mortgage-Backed Securities	BBB	1,570,755	2,067,387
Commercial Mortgage-Backed Securities	BBB+	431,688	169,149
Commercial Mortgage-Backed Securities	CCC	453,955	0
Commercial Mortgage-Backed Securities	not rated	11,096,415	16,227,165
Corporate Bonds	A-	3,182,545	857,096
Corporate Bonds	A	5,788,634	2,517,208
Corporate Bonds	A+	1,294,144	2,312,317
Corporate Bonds	AA-	1,032,463	1,236,844
Corporate Bonds	AA	1,058,744	1,595,332
Corporate Bonds	AA+	652,699	120,673
Corporate Bonds	AAA	1,099,603	2,552,958
Corporate Bonds	BB	0	511,696
Corporate Bonds	BB+	616,617	616,106
Corporate Bonds	BBB-	3,504,432	2,574,304
Corporate Bonds	BBB	7,534,372	5,823,341
Corporate Bonds	BBB+	1,286,503	3,519,045
Corporate Bonds	not rated	1,899,768	1,038,405
Corporate Convertible Bonds	A	489,850	0
Corporate Convertible Bonds	A+	327,750	0
Corporate Convertible Bonds	AA-	388,875	0
Corporate Convertible Bonds	BBB+	362,500	0
Corporate Convertible Bonds	not rated	191,255	0
Government Agencies	Agency	0	9,254,700
Government Agencies	A+	163,769	223,032
Government Agencies	AAA	0	3,374,750
Government Bonds	AAA	20,299,125	4,185,676
Government Bonds	Treasury	3,991,962	6,202,354
Government Mortgage-Backed Securities	Agency	25,070,315	12,679,874
Government Mortgage-Backed Securities	not rated	368,951	0
Municipal/Provincial Bonds	AA-	508,484	0
Municipal/Provincial Bonds	AA	2,242,881	2,883,423
Municipal/Provincial Bonds	AA+	206,735	0
Municipal/Provincial Bonds	AAA	1,266,197	463,223
Pooled Investments	not rated	62,165,864	81,211,799
<b>Total</b>		<b>\$203,259,466</b>	<b>\$251,403,022</b>



# Notes to the Financial Statements

For the Years Ended June 30, 2009 and 2008

## **Note 3 (g) – Investment Foreign Currency Risk**

### **Exposure to Foreign Currency Risk as of June 30**

Foreign Currency	Cash and Equivalents	Equities	Fixed Income	Real Estate	6/30/09 Total	6/30/08 Total
Australian Dollar	\$ 8,868	\$ 1,364,428	\$ 0	\$ 0	\$ 1,373,296	\$ 1,187,650
British Pound Sterling	77,898	2,425,652	0	0	2,503,550	3,965,203
Canadian Dollar	147,914	539,148	0	0	687,062	1,780,590
Danish Krone	0	0	0	0	0	121,973
Euro	357,656	642,136	0	5,241,285	6,241,077	7,683,556
Hong Kong Dollar	6,430	1,997,198	0	0	2,003,628	434,118
Japanese Yen	5,185	678,796	0	0	683,981	4,111,657
New Zealand Dollar	0	0	0	0	0	30,991
Norwegian Krone	0	0	0	0	0	320,613
Singapore Dollar	58,852	1,826,348	0	0	1,885,200	270,835
Swedish Krona	39,087	314,185	0	0	353,272	396,732
Swiss Franc	0	0	0	0	0	1,290,665
Turkish Lira	0	0	0	0	0	810
<b>Total Exposure Risk</b>	<b>\$701,890</b>	<b>\$9,787,891</b>	<b>\$0</b>	<b>\$5,241,285</b>	<b>\$15,731,066</b>	<b>\$21,595,393</b>

## **Note 3 (h) – Securities Lending**

In accordance with the Board of Trustees' investment policy, MPERS participates in a securities lending program. The Northern Trust Company administers the program. There are no restrictions on the amount of securities that may be lent.

Securities that may be loaned include U.S. government and agency securities, corporate equity, and fixed income securities. Collateral may include cash, U.S. government securities and irrevocable letters of credit. U.S. securities are loaned in exchange for collateral valued at 102% of the market value of the securities, plus any accrued interest. Non-U.S. securities are loaned in exchange for collateral valued at 105% of the market value of the securities, plus any accrued interest. On June 30, 2009 and 2008 MPERS had no credit risk exposure to borrowers, since the amount of collateral exceeded the amount of the loans.

Non-cash collateral cannot be pledged or sold unless the borrower defaults. The average term of the System's loans was approximately 85 days and

62 days, as of June 30, 2009 and June 30, 2008, respectively. Cash open collateral is invested in a short-term investment pool, which had an interest sensitivity of 15 days and 36 days, as of June 30, 2009 and June 30, 2008, respectively. Cash collateral may also be invested separately in "term loans", in which case the investments match the loan term. These loans can be terminated on demand by either lender or borrower. There were no known violations of legal or contractual provisions, or borrower or lending agent default losses. There are no dividends or coupon payments owing on the securities lent. Securities lending earnings are credited on approximately the fifteenth day of the following month.

Indemnification deals with a situation in which a client's securities would not be returned due to the insolvency of a borrower and Northern Trust would fail to live up to its contractual responsibilities relating to the lending of those securities. Northern Trust's responsibilities include performing appropriate



# Notes to the Financial Statements

For the Years Ended June 30, 2009 and 2008

borrower and collateral investment credit analyses and demanding adequate types and levels of collateral.

The collateral held (including both cash collateral recognized in the Statement of Plan Net Assets and non-cash collateral) was as follows at June 30:

## **Collateral Held**

<b>Investment Type</b>	<b>2009</b>	<b>2008</b>
Equities	\$26,957,760	\$50,628,009
Government & Government Sponsored Securities	24,810,687	10,262,450
Corporate Bonds	3,243,667	1,846,513
	<b><u>\$55,012,114</u></b>	<b><u>\$62,736,972</u></b>

## NOTE 4 – RECEIVABLES

Receivables at June 30 consisted of the following:

## **Receivables**

<b>Type</b>	<b>2009</b>	<b>2008</b>
Contributions-MoDOT	\$ 3,470,483	\$ 3,349,952
Contributions-MSHP Non-Uniformed	539,703	528,756
Contributions-MSHP Uniformed	1,100,364	1,102,900
Contributions-Retirement System	11,239	32,134
Commission Recapture	823	600
Securities Lending	22,887	141,401
Amounts Due From Members	582	2,280
Investment Interest & Income	2,255,682	4,209,347
Investment Sales	2,576,661	29,847,819
	<b><u>\$9,978,424</u></b>	<b><u>\$39,215,189</u></b>



# Notes to the Financial Statements

For the Years Ended June 30, 2009 and 2008

## NOTE 5 – CONTRIBUTIONS

MoDOT, the Highway Patrol, and MPERS make contributions to the System. As a non-contributory defined benefit plan, employees do not contribute to the System. MPERS permanent funding policy provides for actuarially determined employer contributions using the entry-age normal cost method on a closed group basis (consisting of normal cost and amortization of any unfunded accrued liabilities over a 30-year period, beginning July 1, 2006). (The objective is to reduce the period by one year each year.) A temporary accelerated policy has been adopted where the total contribution is based on entry-age normal cost plus a 15-year amortization period for unfunded retiree liabilities and a 30-year amortization period for other unfunded liabilities. Both amortization periods are closed periods starting July 1, 2010. This temporary accelerated policy was adopted by the MPERS' Board of Trustees on September 17, 2009 and will remain in effect until such time as the retiree liability becomes

100% funded or the permanent policy produces a higher contribution rate. Actuarially determined rates, expressed as percentages of annual covered payroll, provide for amounts sufficient to fund those benefits designated by state statute to be funded in advance. Actuarial assumptions used to compute contribution requirements are the same as those used to compute the pension benefit obligation.

Required employer contributions totaling \$122,599,301 and \$123,335,151 for fiscal years 2009 and 2008, respectively, represent funding of normal costs and amortization of the unfunded accrued liability. Actual contributions made were 100% of required contributions. Contribution rates as determined by the System's actuary for the years ended June 30, 2009 and 2008 are shown below. The Board established actual rates to be the same as the actuarially determined rates.

### Contribution Rates

2009		2008	
MoDOT, MPERS & Civilian Patrol	Uniformed Patrol	MoDOT, MPERS & Civilian Patrol	Uniformed Patrol
30.72%	40.22%	31.01%	42.61%

## NOTE 6 – RELATED PARTY TRANSACTIONS

MoDOT rents office space from MPERS. This contract is effective from June 2008 through May 2011. This

amounted to other income of \$33,024 and \$31,424 during FY09 and FY08, respectively.

## NOTE 7 – PERSONAL SERVICES AND RETIREMENT PLAN

MPERS employed 13 full-time employees on June 30, 2009 and June 30, 2008. Six former MPERS employees have retired. Full-time employees are also members of the system. For these employees, MPERS accrued 30.72% of payroll during FY09, amounting to \$255,300, which was equal to the

required contribution. The net obligations for FY09 and the two preceding years are shown below. These amounts are recorded as both a contribution and administrative expense. Information regarding the retirement plans can be found in Notes 2 and 5.

### Net Obligations

Year Ended June 30	Annual Required Contribution		Percent Contributed	Net Obligation
	Percent	Dollars		
2007 <sup>(3)</sup>	31.10% <sup>(1)</sup>	246,318	100%	\$0
2008	31.01% <sup>(2)</sup>	282,498	100%	\$0
2009	30.72% <sup>(2)</sup>	255,300	100%	\$0

(1) The Annual Required Contribution is the rate adopted by the Board of Trustees. This rate exceeded the Actuarially Required Contribution rate.

(2) The Annual Required Contribution rate is equal to the Actuarially Required Contribution rate.

(3) New assumptions adopted.



# Notes to the Financial Statements

For the Years Ended June 30, 2009 and 2008

## NOTE 8 – OTHER POSTEMPLOYMENT BENEFITS (OPEB)

In addition to the retirement benefits described previously, MPERS provides a portion of health care insurance through the MoDOT and MSHP Medical and Life Insurance Plan (Insurance Plan) in accordance with Missouri state statutes. For the purpose of reporting OPEB costs and obligations in accordance with Governmental Accounting Standards Board (GASB) Statement 45, the Insurance Plan is considered an agent multiple-employer defined benefit plan administered by MoDOT. Medical insurance benefits are established by the Insurance Plan's Board of Trustees and are approved by the Missouri Highways and Transportation Commission. Benefits include general inpatient and outpatient medical services; mental, nervous and substance abuse care; and prescriptions. Eligible members are employees who retired from the System with a minimum of 5 years of service and who participate in the Insurance Plan. MoDOT issues a publicly available financial report that includes financial statements and required supplementary information for the Insurance Plan. Requests for this report should be addressed to MoDOT, Controller's Division, P.O. Box 270, Jefferson City, MO 65102.

Employer and member contributions are established by the Insurance Plan's Board of Trustees and are approved by the Missouri Highways and Transportation Commission. Premiums vary by coverage categories, which include retirees, certain disabled employees, spouses, certain dependents, and survivors of deceased employees and retirees. Employer and member required contribution rates average approximately 51% and 49%, respectively. The Insurance Plan is financed on a pay-as-you-go basis and is an internal service fund of MoDOT.

MoDOT's first actuarial valuation performed for the Insurance Plan was dated July 1, 2007. Actuarial valuations are performed biennially. The July 1, 2007 actuarial valuation was used for the FY08 and FY09 financial statements. For these periods, the annual required contribution (ARC) is equal to the annual OPEB cost. MPERS contributed \$19,930 in FY09 and FY08, 18% and 17% respectively, including implicit rate subsidies. MPERS' share of the net OPEB obligation was \$182,305 and \$94,440 at June 30, 2009 and 2008, respectively. MPERS' share of the changes in the Insurance Plan's net OPEB obligation for the year ended June 30, 2009 are shown below.

### **OPEB Cost and Obligation**

Normal Cost	\$ 35,919
Amortization Payment	73,005
Interest on Net OPEB Obligation	4,722
Adjustment to ARC	(5,851)
Annual OPEB Cost	107,795
Contributions	(19,930)
Increase in Net OPEB Obligation	87,865
Net OPEB Obligation - Beginning of Year	94,440
Net OPEB Obligation - End of Year	\$182,305

Because the Insurance Plan is an internal service fund of MoDOT, the Insurance Plan's assets have not been set aside. Because of this, there is no actuarial value of assets, so the entire actuarial accrued liability (AAL) is unfunded. Based on an actuarial report dated July 1, 2007, MPERS' portion of the AAL is \$1,178,303, which is equal to MPERS' portion of the unfunded actuarial accrued liability (UAAL).

Actuarial valuations of an ongoing plan reflect long-term perspective and involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future

employment, mortality, and the healthcare cost trend. These calculations are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future. A schedule of funding progress is presented as required supplementary information following the notes to the financial statements. As allowed by the GASB, this reporting requirement is being implemented prospectively. Data is not available for prior years. Over time, the schedule of funding progress will present trend information about whether the actuarial value of plan assets is increasing or decreasing relative to the AAL for benefits.



# Notes to the Financial Statements

For the Years Ended June 30, 2009 and 2008

Projections of benefits for financial reporting purposes are based on the substantive plan (the plan as understood by the employers and plan members) and include the types of benefits provided at the time of each valuation and the historical pattern of sharing of benefit costs between the employers and plan members to that point. The actuarial methods and assumptions

used include techniques that are designed to reduce short-term volatility in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations. The actuarial methods and assumptions utilized in the valuation are shown on the following table.

## **Actuarial Methods and Assumptions**

Actuarial Cost Method	Projected unit credit
UAAL Amortization Method	Level dollar amount
UAAL Amortization Period	30 years
UAAL Amortization Approach	Open
Investment Return (discount) Rate	5.0%
Healthcare Cost Trend Rate	10%, decreasing to 5% in 2012

## NOTE 9 – CAPITAL ASSETS

### **Summary of Changes in Capital Assets**

	<b>6/30/2008 Balance</b>	<b>Additions</b>	<b>Deletions/ Retirements</b>	<b>6/30/2009 Balance</b>
Land	\$ 84,000	\$ 0	\$ 0	\$ 84,000
Buildings	581,619	0	0	581,619
Furniture, Equipment and Software	1,145,599	202,621	(29,863)	1,318,357
Less: Accumulated Depreciation	(233,766)	(108,029)	17,066	(324,729)
<b>Total</b>	<b>\$1,577,452</b>	<b>\$94,592</b>	<b>(\$12,797)</b>	<b>\$1,659,247</b>

	<b>6/30/2007 Balance</b>	<b>Additions</b>	<b>Deletions/ Retirements</b>	<b>6/30/2008 Balance</b>
Land	\$ 84,000	\$ 0	\$0	\$ 84,000
Buildings	581,619	0	0	581,619
Furniture, Equipment and Software	133,066	1,012,533	0	1,145,599
Less: Accumulated Depreciation	(171,307)	(62,459)	0	(233,766)
<b>Total</b>	<b>\$627,378</b>	<b>\$950,074</b>	<b>\$0</b>	<b>\$1,577,452</b>



# Notes to the Financial Statements

For the Years Ended June 30, 2009 and 2008

## NOTE 10 – OPERATING LEASES

As of June 30, 2009, MPERS is committed to four equipment and services related leases, three of which were new in FY09. The leases extend

through May 2014. Expenditures for the years ended June 30, 2009 and 2008 amounted to \$8,888 and \$2,915, respectively.

### **Future Minimum Lease Payments**

#### **Year Ending June 30**

2010	\$32,123
2011	25,884
2012	8,604
2013	8,604
2014	6,135
<b>Total minimum lease payments</b>	<b><u>\$81,350</u></b>

## NOTE 11 – RISK MANAGEMENT

MPERS is exposed to various risks of loss related to natural disasters, asset theft or damage, errors and omissions, torts, and employee injuries.

MPERS has purchased commercial insurance related to capital asset loss and damage. Ancillary coverage provided through the property policy includes coverage for accounts receivable, loss of money and securities, employee dishonesty, and forgery

and alterations. MPERS carries a \$2 million umbrella liability policy. MPERS has coverage through Missouri Highway and Transportation Commission's Self-Insurance Fund related to workers' compensation. The State's Legal Expense Fund covers all state employees and officers, and MPERS has purchased surety bonds for the director and staff. Settlements have not exceeded coverages for each of the past three fiscal years.



# Notes to the Financial Statements

For the Years Ended June 30, 2009 and 2008

## NOTE 12 – COMMITMENTS

During fiscal year 2007, the System purchased a new pension administration software system. Total software and related consulting services are estimated to be approximately \$3,000,000.

\$1,208,141 of such costs have been capitalized and \$161,794 have been expensed through June 30, 2009.

## NOTE 13 – SUBSEQUENT EVENTS

Since June 30, 2009, the global investment markets continue to rebound strongly on signs of improved economic growth. Volatility in the marketplace remains high, however, as investors debate whether the economic recovery is sustainable. Since plunging from its historic high of 14,164.53 on October 9, 2007, the Dow Jones industrial

average fell to 6,547.05 on March 9, 2009, but increased to 10,270.47 on November 13, 2009. In management's opinion, the increased market volatility could remain in place for an extended period of time, and we are actively reviewing the asset allocation strategy to determine the best course of action going forward.



# Required Supplementary Information

## Schedule of Funding Progress

Year Ended June 30	Actuarial Asset Value	Accrued Liability – Entry Age	Unfunded Accrued Liability (UAAL)	Funded Ratio	Actuarial Covered Payroll <sup>(1)</sup>	UAAL as a Percentage of Covered Payroll
2004	\$1,331,588,207	\$2,492,918,976	\$1,161,330,769	53.41%	\$316,224,468	367.25%
2005 <sup>(2)</sup>	1,417,348,982	2,627,409,025	1,210,060,043	53.94	334,030,151	362.26
2006	1,521,142,953	2,740,437,837	1,219,294,884	55.51	341,227,890	57.33
2007 <sup>(2)</sup>	1,685,807,004	2,897,267,409	1,211,460,405	58.19	365,012,472	326.89
2008	1,783,902,280	3,019,633,781	1,235,731,501	59.08	375,984,141	328.67
2009	1,471,496,660	3,113,393,645	1,641,896,985	47.26	379,542,506	432.60

(1) Values are estimated from contribution rate and amount.

(2) New assumptions adopted.

## Schedule of Employer Contributions

Year Ended June 30	Uniformed Patrol			MoDOT, Civilian Patrol & MPERS		
	Annual Required Contribution Percent	Dollars	Percent Contributed	Annual Required Contribution Percent	Dollars	Percent Contributed
2004	38.40%	\$17,792,058	100%	25.54%	\$68,932,856	100%
2005 <sup>(2)</sup>	43.54	22,187,762	100	28.28	80,052,383	100
2006	44.27	24,102,199	100	30.49	87,440,518	100
2007 <sup>(2)</sup>	44.28 <sup>(1)</sup>	27,802,932	100	31.10 <sup>(1)</sup>	93,991,526	100
2008	42.61	29,147,429	100	31.01	95,380,249	100
2009	40.22	27,298,132	100	30.72	95,745,169	100

(1) The ARC is the rate adopted by the Board of Trustees. This rate exceeded the actuarially calculated rate.

(2) New assumptions adopted.

## Notes to the Schedules of Trend Information

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation Date ..... June 30, 2009  
 Actuarial Cost Method..... Entry Age Normal  
 Amortized Method..... Level Percent of Payroll  
 Remaining Amortization Period.....24 Years (single equivalent period)  
 Amortization Approach.....Closed  
 Asset Valuation Method..... 3-Year Smoothing  
 Actuarial Assumptions:  
     Investment Rate of Return..... 8.25%  
     Projected Salary Increase.....3.75% to 11.75%  
     Cost-of-Living Adjustments ..... 2.6% Compound  
     Includes Wage Inflation at ..... 3.75%



# Required Supplementary Information

## Other Post-Employment Benefit (OPEB) Plan Schedule of Funding Progress for MoDOT and MSHP Medical and Life Insurance Plan

Year Ended June 30	Actuarial Value of Assets (a)	Actuarial Accrued Liability (AAL) (b)	Unfunded AAL (UAAL) (b-a)	Funded Ratio (a/b)
2008	\$0	\$1,178,303	\$1,178,303	0%

Actuarial valuations are performed biennially. The July 1, 2007 actuarial valuation was used for FY08 and FY09 financial statements. As allowed by the GASB, this reporting requirement is being implemented prospectively, as prior years' data is not available.

Because this plan is an internal service fund of MoDOT, assets have not been set aside. Therefore, there is no actuarial value of assets. This results in a calculated funded ratio of zero percent.

### Notes to the Schedule of Trend Information - OPEB

The information presented in the required supplementary schedule was determined as part of the actuarial valuation at the date indicated. Additional information as of the latest actuarial valuation follows:

Valuation Date .....	July 1, 2007
Actuarial Cost Method .....	Projected Unit Credit
UAAL Amortization Method .....	Level Dollar Amount
UAAL Amortization Period .....	30 years
UAAL Amortization Approach .....	Open
Investment Return (discount) Rate .....	5.0%
Healthcare Cost Trend Rate .....	10% decreasing to 5% in 2012



# Supplementary Information

## MoDOT AND PATROL EMPLOYEES' RETIREMENT SYSTEM SCHEDULES OF ADMINISTRATIVE EXPENSES FOR THE YEARS ENDED JUNE 30, 2009 AND 2008

	2009	2008
<b><u>Personal Services:</u></b>		
Salary Expense	\$ 842,992	\$ 949,751
Employee Benefit Expense	<u>568,872</u>	<u>615,533</u>
<b>Total Personal Services</b>	<b>1,411,864</b>	<b>1,565,284</b>
<b><u>Professional Services:</u></b>		
Actuarial Services	127,901	57,240
Computer Services	242,618	255,133
Audit Expense	26,300	21,200
Disability Program	20,384	29,344
Consultant Fees	104,396	62,935
Other	<u>20,129</u>	<u>12,920</u>
<b>Total Professional Services</b>	<b>541,728</b>	<b>438,772</b>
<b><u>Miscellaneous:</u></b>		
Depreciation	120,826	62,756
Meetings/Travel/Education	67,546	89,701
Equipment/Supplies	34,686	52,543
Printing/Postage	73,625	69,481
Bank Service Charge	7,189	4,927
Building Expenses	34,834	36,773
Other	<u>47,203</u>	<u>50,978</u>
<b>Total Miscellaneous</b>	<b>385,909</b>	<b>367,159</b>
<b>Total Administrative Expenses</b>	<b><u>\$2,339,501</u></b>	<b><u>\$2,371,215</u></b>



# Supplementary Information

## MoDOT AND PATROL EMPLOYEES' RETIREMENT SYSTEM SCHEDULES OF INVESTMENT EXPENSES FOR THE YEARS ENDED JUNE 30, 2009 AND 2008

	2009	2008
<b>Investment Income Expenses:</b>		
Management and Performance Fees		
Aberdeen Asset Management	\$ 134,550	\$ 168,552
ABRY Partners	380,669	80,477
Acadian Asset Management	765,274	1,299,714
AEW	187,500	187,500
Albourne	240,000	240,000
Algert Coldiron Investments (ACI)	282,258	570,137
American Infrastructure MLP	249,209	135,059
Apollo Real Estate	278,505	210,447
AQR Capital Management	187,681	394,660
Artio (formerly Julius Baer)	601,974	835,272
Assiduous Strategic Investment (ASI)	0	147,168
Audax Group	132,012	125,391
AXA Rosenberg	21,269	213,055
Barclays Global Investors	459,043	1,436,442
Black River	540,963	669,910
Blackrock, Inc.	186,816	489,829
Brevan Howard	976,049	0
Bridgewater Associates	519,477	4,026,537
CBRE	63,170	0
Clifton	49,830	0
Colony Capital	77,190	235,970
Concordia	106,401	382,673
CQS Management	327,149	407,078
CarVal Investors (CVI)	335,311	273,662
Deephaven Capital Management	143,526	126,897
EIF Management	112,815	57,581
Enhanced Investment Technologies (INTECH)	258,764	400,197
GMO	774,586	1,562,846
Grove Street Advisors	2,500,000	2,000,000
GSO	50,000	0
ING Clarion	602,432	827,160
Luxor	233,165	0
Natural Gas Partners	424,717	377,758
Och-Ziff Real Estate	152,890	0
Ospraie	61,648	0
Paulson and Co.	1,852,594	4,030,311
Pinnacle Associates	107,914	476,481
Principal Global Investors	855,587	1,237,611
RMK Timberland	205,989	205,989
Rothschild Asset Management	216,200	296,315
Silchester International Investors	500,069	680,958
Stark Investments (Shepard)	255,800	425,112
Structured Portfolio Management (SPM)	327,658	167,824
Taconic	184,544	0
Urdang	268,307	293,698
Vectis	166,524	0
Vicis Capital	625,819	985,107
Western Asset Management Company	133,137	175,241
<b>Total Management and Performance Fees</b>	<b>18,116,985</b>	<b>26,856,619</b>
Investment Custodial Fee	\$122,541	\$232,728
Performance Management	85,757	67,950
General Consultant (monitoring) Fee	225,000	225,000
Other Investment Expenses	828,828	249,474
<b>Total Investment Income Expenses</b>	<b>\$19,379,111</b>	<b>\$27,631,771</b>
<b>Securities Lending Expenses:</b>		
Borrower Rebates	\$237,672	\$3,257,768
Bank Fees	71,278	177,066
<b>Total Securities Lending Expenses</b>	<b>\$ 308,950</b>	<b>\$ 3,434,834</b>



# Supplementary Information

## MoDOT AND PATROL EMPLOYEES' RETIREMENT SYSTEM SCHEDULES OF CONSULTANT AND PROFESSIONAL EXPENSES FOR THE YEARS ENDED JUNE 30, 2009 AND 2008

	2009	2008
Actuarial Services	\$ 127,901	\$ 57,240
Computer Services	242,618	255,133
Audit Services	26,300	21,200
Disability Administrative Services	20,384	29,344
Legislative Consultant	35,000	30,000
Board Governance Consultant	58,000	0
Customer Service and Benefit Delivery	5,396	17,508
Insurance Consultant	6,000	6,000
Salary and Benefits Study, Employment Agreement	0	9,427
Other	20,129	12,920
<b>Total Consultant and Professional Expenses</b>	<b><u>\$541,728</u></b>	<b><u>\$438,772</u></b>





# Focused on SECURITY



Investment Section

# Chief Investment Officer Report

Susie Dahl  
Executive Director



MoDOT & Patrol  
Employees' Retirement System

Pam Henry  
Assistant Executive Director

November 16, 2009

To the Members of the MoDOT & Patrol Employees' Retirement System:

It is my pleasure to provide you with the investment section of this year's comprehensive annual financial report. This section is a supplement to the comprehensive report and provides an overview of developments and performance within the investment portfolio.

From an investment perspective, fiscal year 2009 was the most challenging period in the history of the pension fund. The sub-prime housing crisis that began in 2007 ultimately spread to the broader housing and commercial real estate sectors, causing their asset values to fall considerably. Since the peak of the housing market in July 2006, the median home price has dropped by over 20%, and even more in higher-priced markets such as Florida, California, Arizona and Nevada. The banking industry, with the record number of defaults and foreclosures on real estate loans, needed a number of government stimulus programs to narrowly avoid a complete collapse. As banks began the process of cleaning up their balance sheets, they were unable to lend and provide credit to customers like they had in years past. The lack of available credit created multiple problems for businesses and consumers alike, and the U.S. economy continued to suffer.

The environment was especially painful for MPERS' equity and commercial real estate portfolios, which fell by 33.7% and 30.0%, respectively, during the year. MPERS' reliance on alternative investment strategies did not provide the expected diversification against the falling equity markets, as investors fled to the relative safety of the U.S. Treasury market (a sector we have been underweight to since 2004). In total, MPERS investment portfolio suffered a -24.7% return for the year, the worst performance ever recorded since the fund was established in 1955. Fortunately, the markets have rebounded significantly from their lows and have continued their rally into fiscal year 2010. As we finalize this report, the S&P 500 has gained over 60% since the lows set on March 6, 2009, as signs of economic growth begin to return to the markets.

As a pension system, we are in the business of managing risk. Your plan sponsors, namely the Missouri Department of Transportation and Missouri State Highway Patrol, have little incentive to contribute dollars into the system only to receive the low returns offered by risk-free assets. One of the primary purposes of pre-funding a retirement system is to invest those funds in a manner that earns an attractive return, so those contributions will grow over time and reduce contribution rates in the future. If a system does not accept investment risk in their portfolio, then plan sponsors should simply adopt a "pay as you go" system and pay benefits from current year revenues. Our role is not to avoid risk altogether, but rather to manage risk in the best way possible to prevent these types of years from occurring more frequently.

With this in mind, the Board of Trustees initiated a review of MPERS asset allocation strategy to determine if changes are necessary going forward. With the help of outside consultants, we are reviewing each and every facet of the asset allocation process to ensure our strategies are in-line with industry standards and best practice. While it is too early to predict what, if any, changes will be made, I take comfort in knowing we have the right partners in place to ensure the right decisions are made.

While it is easy to be discouraged by the negative numbers for FY09, the important thing to remember is that your benefit payments are safe and secure. Despite the turmoil in the financial markets over the past year, your benefit payment remains unchanged and we have over \$1.2 billion set aside for future payments to our beneficiaries. I'm confident the economy will once again find its footing and when it does, we are well positioned to take advantage of it.

Sincerely,

A handwritten signature in black ink, appearing to read 'Larry Krummen'.

Larry Krummen, CFA

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Telephone Number: (573) 298-6080 • Toll Free: 1-800-270-1271 • Admin. Fax: (573) 526-5895 • Benefits Fax: (573) 522-6111  
Website: [www.mpers.org](http://www.mpers.org) • E-Mail: [mpers@modot.mo.gov](mailto:mpers@modot.mo.gov)



# Investment Consultant Report



**Summit Strategies Group**

October 19, 2009

Ms. Susie Dahl  
Executive Director  
MoDOT & Patrol Employees' Retirement System  
1913 William Street  
Jefferson City, MO 65109

Dear Ms. Dahl:

The fiscal year ending June 30, 2009 was difficult. In the first half, markets around the world tumbled. Between September '08 – starting with the collapse of Lehman Brothers – and November, the S&P 500 fell approximately 39% in a nine-week period. Stock markets were off materially, and the credit markets froze. With the exception of US Treasuries, there was no safe place to hide. We witnessed a recovery off the market lows of March 9, 2009, but even so the S&P 500 ended the fiscal year with a return of -26.2%.

With total assets of \$1,221,219,306 on June 30, 2009 the return was -24.7% for the year, trailing the policy benchmark as well as the peer group. For the 3- and 5-year periods, the fund earned -4.6% and 2.1%, likewise behind the policy benchmark. These returns were calculated using a time-weighted rate of return and are based on June 30, 2009 market values.

Performance in all asset classes was disappointing, and the fixed income portfolio was particularly hard hit. Exposure to credit was negatively impacted, due to the aforementioned freeze in the credit markets. Liquidity came at a premium, which drove prices down across the board. Subsequent to the end of the fiscal period we have seen strong recovery in this piece of the portfolio. The real estate investments likewise suffered, and the asset class continues to struggle in the economic downturn.

Your portfolio is well-diversified and we believe this remains appropriate. Classic tenets of Modern Portfolio Theory did not hold up as well as expected during this crisis. That said, it was still better to be diversified than not, as all markets suffered by varying degrees. The following carries over from my last letter to you, and remains applicable today: "We think your assets are well-positioned, and that will be the key to future success. This is not, however, a "set and forget" exercise, and we will continue to work with you, your staff and the Board of Trustees to refine our strategies and attempt to capture opportunities as they present themselves."

As you know, we are in the process of reviewing your asset allocation targets. In this effort we look forward to developing, in conjunction with you and the Board of Trustees, a portfolio that will serve the System well in the years to come.

On behalf of all of us at Summit Strategies Group, we appreciate your continued support and trust. It is truly a pleasure to be working with you in your efforts to provide for the retirement security of your membership. We look forward to many years of continued success with the MoDOT & Patrol Employees' Retirement System.

Sincerely,

Mark A. Caplinger, CFA  
Senior Vice President

8182 Maryland Avenue, 6th Floor • St. Louis, Missouri 63105 • 314.727.7211, fax 314.727.6068



# Investment Activity Overview

## **Summary of Investment Policy**

The primary objective of the Missouri Highway Transportation Employees & Highway Patrol Retirement System (MPERS) is to provide active and retired employees with adequate retirement benefits. The investment portfolio is constructed to generate a total return that, when added to employer contributions, is sufficient to meet benefit obligations. Following prudent standards for preservation of capital, the goal is to achieve the highest possible rate of return consistent with the plan's tolerance for risk as determined by the Board of Trustees in its role as fiduciary.

Investment management is delegated to MPERS' staff and external asset managers. The managers operate within the set of guidelines, objectives and constraints set forth in their respective investment management agreement.

## **Market Value of Investments**

As of June 30, 2009, MPERS' investment portfolio had a total market value of \$1.22 billion, representing a decrease of \$490 million from fiscal year-end 2008. Over the course of the year, \$71.8 million was transferred out of the fund to meet benefit payments and other obligations. When viewed together, the net decrease from investment activity equated to \$418.2 million.

## **Investment Performance**

The MPERS' investment portfolio returned -24.7% in fiscal year 2009, based on time-weighted rates of return and market valuations. Performance for the various sub-asset classes and their respective benchmark indices is listed below.

<b>Investment Performance (Including Benchmarks)</b>	<b>1 Year</b>	<b>3 Year</b>	<b>5 Year</b>
<b>Total Fund</b>	<b>-24.70%</b>	<b>-4.61%</b>	<b>2.06%</b>
Policy Benchmark	-17.68	-1.67	3.33
<b>Domestic Equity</b>	<b>-33.87</b>	<b>-10.97</b>	<b>-3.18</b>
Russell 3000	-26.56	-8.35	-1.84
<b>International Equity</b>	<b>-32.91</b>	<b>-6.98</b>	<b>5.11</b>
MSCI ACWI ex-US	-30.54	-5.35	4.95
<b>Fixed Income Composite</b>	<b>-11.97</b>	<b>-0.51</b>	<b>1.58</b>
Lehman Universal Index	4.93	5.92	4.95
<b>Real Estate</b>	<b>-29.95</b>	<b>-4.76</b>	<b>3.12</b>
NCREIF Property Index	-19.57	0.98	7.60



# Investment Activity Overview

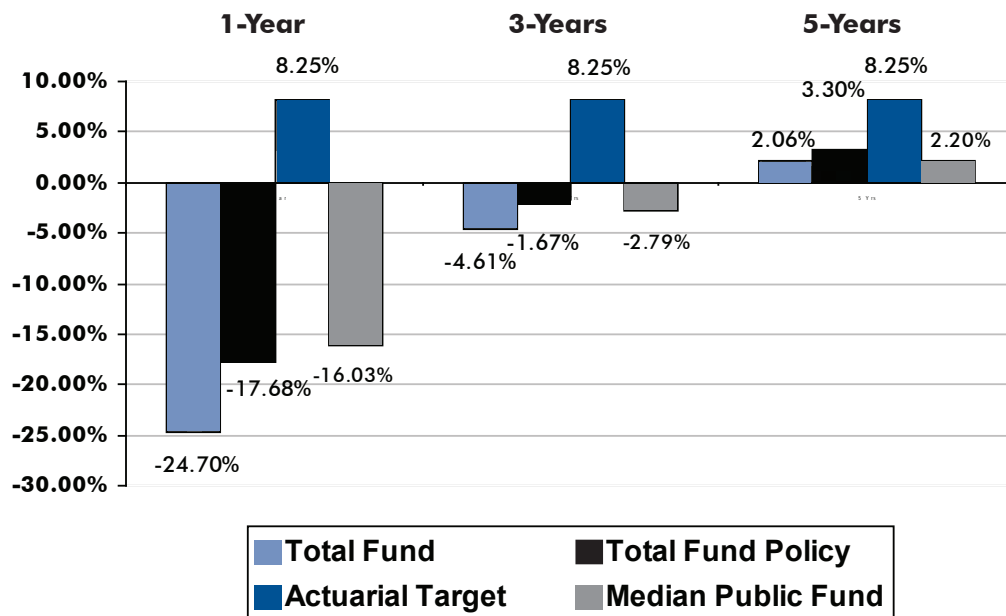
When measuring performance, the Board of Trustees looks at three primary performance objectives: a) meet or exceed the actuarial assumed rate of return of 8.25%, b) outperform a policy benchmark that represents the return that could be achieved by investing passively in the broad markets in the same percentages to MPERS' target asset allocation, and c) rank at or above the median public fund investment return.

Fiscal year 2009 was the most challenging period in the history of the pension fund. The sub-prime housing crisis that began in 2007 ultimately spread to the broader housing and commercial real estate sectors, causing their asset values to fall rapidly over the year. The banking industry, with the record number of defaults and foreclosures on their real estate loans, needed a number of government stimulus programs to narrowly avoid

a complete collapse. As banks began the process of cleaning up their balance sheets, they were unable to loan and provide credit to customers as they had in past years. The lack of available credit created multiple problems for businesses and consumers alike, leading to a significant contraction in the U.S. economy.

The environment was especially painful for MPERS' equity and commercial real estate portfolios, which fell by 33.7% and 30.0%, respectively, during the year. MPERS' reliance on alternative investment strategies did not provide the expected diversification against the falling equity markets, as investors fled to the relative safety of the U.S. Treasury market (a sector we have been underweight to since 2004). In total, MPERS investment portfolio suffered a -24.7% return for the year, the worst performance ever recorded since the fund was established in 1955.

Historical returns versus the various performance goals are listed below:



## Asset Allocation Overview

### Equity Allocation:

We began the year with an even 50/50 split between domestic and international equities. As the equity markets began to fall rapidly in the fall of 2008, we maintained a slight underweight position to equities overall, but began favoring U.S. equities based on the improving outlook for the U.S. Dollar and the U.S. Government's reaction to the recession. Based in part on the massive stimulus programs by the U.S. Government, we felt the U.S. economy would be the first to recover from the recession and therefore preferred U.S. equities relative to international

equities. We kept this position through the 1st quarter of calendar year 2009, at which point the equity markets started to rebound. At that point we moved back to a roughly 50/50 split between domestic and international equities, and remain close to that target as of June 30, 2009.

### Fixed Income Allocation:

We began fiscal year 2009 with an underweight allocation to traditional fixed income assets, in favor of absolute return hedge fund strategies. Unfortunately, this strategy did not serve us well



# Investment Activity Overview

throughout the year as investors fled hedge fund strategies in favor of the relative safety of the U.S. Treasury market. While MPERS absolute return hedge fund portfolio performed very well relative to the broad hedge fund industry, the return of -9.8% for the year significantly underperformed traditional fixed income markets that earned a positive 4.9% for the year. As we work through the current asset allocation study, we believe that absolute return hedge fund strategies are well positioned to generate strong risk-adjusted returns in the coming years.

## **Real Estate Allocation:**

The market environment was especially painful for MPERS commercial real estate portfolio, which fell by 30.0%, during the year. Heading into fiscal year 2009, we made a number of allocation moves designed to better position the portfolio against the possible decline of real estate prices, but unfortunately had little success in this regard. We were able to liquidate \$37.5 million of private equity real estate before real estate valuations started to fall, and invested the proceeds into public real estate investment trusts (REITs) which had already dropped by over 25% in value. As the equity markets continued their rapid decline, public REITs suffered additional losses and the REIT portfolio fell yet another 26.7% for the year.

## **Private Equity Allocation:**

The relationship with Grove Street Advisors remained active throughout the year, as they called a total of \$27.4 million in capital to fund new private equity investments. Grove Street was hired in July of 2005 to invest a total of \$200 million in private equity commitments across a broad range of strategies and geographic regions. Grove Street completed this first program (called MP Ventures) in April of 2008, allocating funds across 25 managers with commitments ranging from \$5 to \$12 million per relationship. We are now working on a second \$200 million program (MP Ventures II), which officially launched on April 22, 2008. Together with direct

investments made outside the Grove Street umbrella, MPERS' invested a total of \$36.6 million throughout the year in new private equity ventures, ending the year with a 9.4% allocation to private equity.

## **Looking Forward:**

As confidence returns to the equity markets, we are beginning to favor international equities over U.S. equities. The massive amounts of U.S. Government debt issued to finance the various stimulus programs are a significant threat to the value of U.S. dollar relative to foreign currencies, which dampens our outlook for U.S. equities. Furthermore, the outlook for economic growth is more favorable in developing countries such as China, India, and Brazil, as the U.S. consumer is forced to clean up their balance sheet and reduce spending.

The evolution and restructuring of the absolute return/hedge fund portfolio continues, and seems to be a never-ending process. While this portfolio did not provide the desired diversification against a falling equity market over the past year, we remain convinced it is well positioned to deliver strong returns going forward. With the help of outside consultants, we continue to research how to properly utilize and structure the portfolio to meet our long-term objectives.

We also remain underweight to traditional fixed income securities, as alternative investments offer the potential for higher relative returns. While this continued to detract from performance in fiscal year 2009, we remain convinced this trade will benefit the fund over the next 3-5 years. The underweight to traditional fixed income is partially offset by a small allocation to cash, which improves the liquidity of the portfolio during these volatile times.

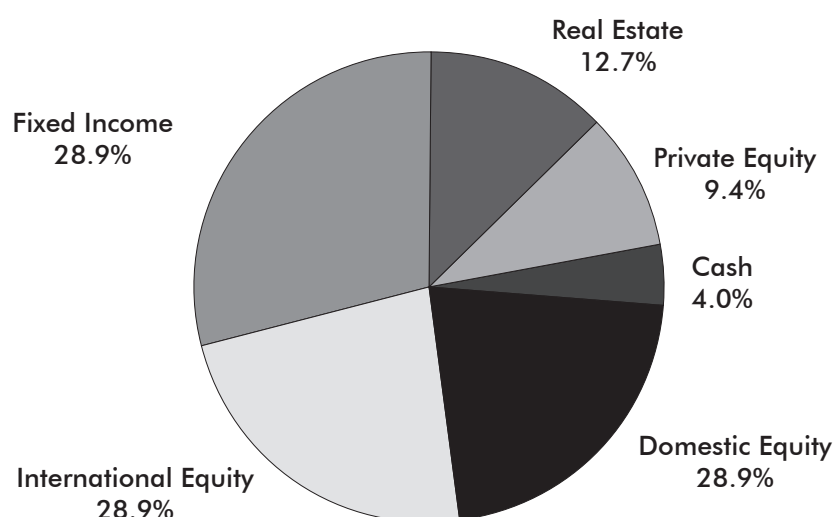
The chart below lists the target and actual allocations to the various sub-asset classes within the overall portfolio (as of June 30, 2009).

Asset Class	Ending FY08 Allocation	FY09 Target Allocation	Ending FY09 Allocation
<b>Public Equity</b>	<b>44.7%</b>	<b>45.0%</b>	<b>45.0%</b>
Domestic equity	21.4%	22.5%	21.7%
International equity	23.3%	22.5%	23.3%
<b>Private Equity</b>	<b>9.5%</b>	<b>10.0%</b>	<b>9.4%</b>
<b>Fixed Income</b>	<b>27.8%</b>	<b>32.0%</b>	<b>28.9%</b>
<b>Real Estate*</b>	<b>13.5%</b>	<b>13.0%</b>	<b>12.7%</b>
<b>Cash</b>	<b>4.6%</b>	<b>0.0%</b>	<b>4.0%</b>

\* Including Timber, which was rolled into the overall Real Estate Allocation on 4/1/07.



# Investment Summary



## Amounts Reported By Management-Type Allocation

	06/30/08		Acquisitions	Dispositions	06/30/09		% of Market
	Book Value	Market Value			Book Value	Market Value	
Domestic Equity	\$ 316,605,903	\$ 333,952,807	\$ 215,867,285	\$ (240,448,550)	\$ 292,024,638	\$ 264,113,357	21.7%
International Equity	382,180,951	399,152,873	20,045,042	(8,945,349)	393,280,644	284,506,505	23.3
Private Equity	169,639,679	162,683,281	44,292,825	(66,278,732)	147,653,772	114,399,308	9.4
Real Estate**	180,816,270	230,641,364	46,175,708	(52,266,019)	174,725,959	154,099,475	12.7
Fixed Income	474,470,478	508,382,990	279,917,998	(380,459,668)	373,928,808	351,462,581	28.9
Short Term	79,116,562	79,162,082	(30,224,916)	0	48,891,646	48,143,112	4.0
<b>Total Investments</b>	<b>\$1,602,829,843</b>	<b>\$1,713,975,397</b>	<b>\$576,073,942</b>	<b>\$(748,398,318)</b>	<b>\$1,430,505,467</b>	<b>\$1,216,724,338</b>	<b>100.0%</b>

### Reconciliation to Statement of Plan Net Assets:

Less Accrued Investment Interest and Income	(2,255,682)
Less Investment Sales Receivable	(2,576,661)
Plus Investment Purchases Payable	7,196,796
Currency Adjustment	108,548
	<u>\$1,219,197,339</u>

\*\* Timber was rolled into the overall Real Estate allocation on 04/01/2007.



# Largest Investment Holdings

## Largest Equity Securities

(Non-Commingled Funds)

Shares	Security	Market Value
49,600	EXXON MOBIL CORP COM	\$3,467,536
70,412	AT&T INC COM	1,749,034
30,365	PROCTER & GAMBLE CO COM	1,551,652
26,800	JOHNSON & JOHNSON COM	1,522,240
119,200	GENERAL ELECTRIC CO	1,397,024
18,408	CHEVRON CORP COM	1,219,530
11,200	INTERNATIONAL BUSINESS MACHS CORP COM	1,169,504
48,400	MICROSOFT CORP COM	1,150,468
511,277	CHINA RESOURCES LAND LTD HKD0.10	1,133,378
30,582	MYRIAD GENETICS INC COM	1,090,248

## Largest Fixed Income Securities

(Non-Commingled Funds)

Par Value	Security	Market Value
35,000,000	US TREAS BD STRIPPED PRIN PMT STRIP PRINPMT 15/11/2021 USD1000 11-15-2021 REG	\$20,299,125
5,000,000	CMO COML MTG PASS THRU CTF SER 2007-C MTG PASS THRU CTF CL A-3 09-15-2039 REG	3,720,080
5,000,000	CMO WBCMT COML MTG PASS TH MTG PASSTHRU CTF CL A-4 5.54 DUE04-15-2047 REG	3,316,265
125,154,509	I/O CMO LB-UBS COML MTG TR 2003-C3 MTG PASSTHRU CTF X-CL 144A 02-15-2037 BEO	3,134,495
4,215,000	CMO J P MORGAN CHASE COML MTG SECS TR 2007-C 5.631 DUE 02-15-2051 REG	2,775,641
7,000,000	CMO COMMERCIAL MTG TR 2007-GG9 CL AJ FLTRT DUE 03-10-2039 BEO	2,564,268
5,000,000	CREDIT SUISSE FIRST BOSTON MTG SECS CORP2005-C4 MTG PASSTHRU CTF CL B 15 AUG 38	2,147,045
5,500,000	CMO CR SUISSE COML MTG TR SER 2006-C4 SER 2006-C4 CL-AJ DUE 09-15-2039 REG	1,960,266
1,956,000	UNITED STATES TREAS NTS DTD 00231 3.125%DUE 05-15-2019 REG	1,891,824
2,500,000	CMO BSCMS INC 2003-TOP12 COML MTG PASSTHRU CTF CL C DUE 08-13-2039 REG	1,674,285

Space and cost restrictions make it impractical to print the entire investment portfolio in this report. However, a portfolio listing is available for review in the office of the executive director of MPERS.



# Schedule of Investment Expenses

	Market Value of Assets Under Management at 6/30/09	Fees Accrued During FY09
<b><u>Management and Performance Fees:</u></b>		
Cash	\$ 48,143,112	\$ 0
Cash/S&P 500 Futures	33,055,582	0
Internal Fixed Income	20,299,333	0
Transition Account	357,950	0
Aberdeen Asset Management	87,142,853	134,550
ABRY Partners	6,114,298	380,669
Acadian Asset Management	109,332,304	765,274
AEW	7,337,759	187,500
Albourne	0	240,000
Algert Coldiron Investments (ACI)	7,735,311	282,258
American Infrastructure MLP	3,643,088	249,209
Apollo Real Estate	10,486,706	278,505
AQR Capital Management	12,758,645	187,681
Artio (formerly Julius Baer)	96,297,565	601,974
Assiduous Strategic Investment (ASI)	0	0
Audax Group	5,381,816	132,012
AXA Rosenberg	0	21,269
Barclays Global Investors	14,260,728	459,043
Black River	10,061,532	540,963
Blackrock, Inc.	0	186,816
Brevan Howard	17,108,366	976,049
Bridgewater Associates	17,831,906	519,477
CBRE	14,712,713	63,170
Clifton	0	49,830
Colony Capital	1,891,000	77,190
Concordia	1,881,799	106,401
CQS Management	15,707,632	327,149
CarVal Investors (CVI)	18,351,360	335,311
Deephaven Capital Management	12,471,844	143,526
EIF Management	4,569,083	112,815
Enhanced Investment Technologies (INTECH)	68,398,005	258,764
GMO	11,773,573	774,586
Grove Street Advisors	79,209,971	2,500,000
GSO	7,474,840	50,000
ING Clarion	37,470,167	602,432
Luxor Capital	11,503,149	233,165
Natural Gas Partners	7,529,124	424,717
Och-Ziff Real Estate	8,717,891	152,890
Ospraie Management	12,347,878	61,648
Paulson and Co.	28,565,295	1,852,594
Pinnacle Associates	26,065,595	107,914
Principal Global Investors	73,183,725	855,587
RMK Timberland	23,023,448	205,989
Rothschild Asset Management	32,546,727	216,200
Silchester International Investors	78,518,686	500,069
Stark Investments (Shepard)	17,205,097	255,800
Structured Portfolio Management (SPM)	10,580,117	327,658
Taconic Capital Advisors	19,439,548	184,544
Urdang	12,322,310	268,307
Vectis	717,334	166,524
Vicis Capital	11,046,079	625,819
Western Asset Management Company	62,151,494	133,137
<b>Total Management and Performance Fees</b>	<b><u>\$1,216,724,338</u></b>	<b><u>18,116,985</u></b>
<b><u>Other Investment Expenses</u></b>		
Investment Custodial Fee		122,541
Performance Management		85,757
General Consultant (monitoring) Fee		225,000
Other Investment Expenses		828,828
<b>Total Investment Income Expenses</b>		<b><u>\$19,379,111</u></b>
<b><u>Securities Lending Expenses:</u></b>		
Borrower Rebates		\$237,672
Bank Fees		71,278
<b>Total Securities Lending Expenses</b>		<b><u>\$308,950</u></b>



# Schedule of Brokerage Commissions

Brokerage Firm	Total Commission	Number of Shares	Commission Rate
BARCLAYS CAPITAL	\$ 22,655	587,059	\$ 0.0386
MERRILL LYNCH	19,150	2,124,098	0.0090
NORTHERN TRUST CO	15,824	368,025	0.0430
UBS AG	13,639	2,345,383	0.0058
BNY ESI SECURITIES CO.	12,481	285,648	0.0437
JEFFERIES & COMPANY	12,376	1,022,668	0.0121
JP MORGAN SECURITIES	11,319	1,776,721	0.0064
INSTINET	9,228	926,963	0.0100
DEUTSCHE BANK	8,089	550,507	0.0147
CITATION GROUP	7,556	181,300	0.0417
CREDIT SUISSE FIRST BOSTON	7,061	474,654	0.0149
GOLDMAN SACHS	7,039	860,218	0.0082
WEEDEN AND & CO	5,915	581,460	0.0102
MORGAN STANLEY	4,778	228,800	0.0209
CITIGROUP GLOBAL	4,516	559,989	0.0081
RBC CAPITAL MARKETS CORPORATION	4,094	182,676	0.0224
CAP INSTITUTIONAL SERVICES INC	4,010	274,800	0.0146
LYNCH JONES & RYAN	3,820	336,200	0.0114
LIQUIDNET INC	3,696	206,795	0.0179
ROBERT W. BAIRD & COMPANY	3,398	122,048	0.0278
GUZMAN & COMPANY	3,350	276,900	0.0121
KAS ASSOCIATES N.V. AMSTERDAM	3,336	130,047	0.0257
ROSENBLATT SECURITIES	3,327	269,488	0.0123
MACQUARIE SECURITIES	3,152	1,285,848	0.0025
TORONTO DOMINION SECURITIES	2,803	130,608	0.0215
STIFEL NICOLAUS	2,749	70,235	0.0391
NATIONAL FINANCIAL SERVICES	2,520	73,179	0.0344
SCOTIA CAPITAL MARKETS TORONTO	2,445	89,879	0.0272
CANTOR FITZGERALD	2,434	75,334	0.0323
KNIGHT SECURITIES L.P.	2,407	68,774	0.0350
DONALDSON LUFKIN AND JENRETTE	2,351	76,065	0.0309
THOMAS WEISEL PARTNERS	2,210	220,998	0.0100
CAZENOVE & CO	2,121	2,548,206	0.0008
MORGAN KEEGAN AND COMPANY	2,019	58,687	0.0344
OTHERS (66 firms less than \$2,000 each)	28,849	2,576,625	0.0112
<b>TOTAL</b>	<b>\$ 246,715</b>	<b>21,946,885</b>	
<b>AVERAGE COMMISSION RATE</b>			<b>\$ 0.0112</b>





# Focused on BENEFITS



Actuarial Section

# Actuary's Certification Letter



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October 13, 2009

The Retirement Board  
Missouri Department of Transportation  
and Highway Patrol Employees' Retirement System  
P.O. Box 1930  
Jefferson City, Missouri 65102-1930

Dear Board Members:

The basic financial objective of the Missouri Department of Transportation and Highway Patrol Employees' Retirement System (MPERS) is to establish and receive contributions which;

- (1) when expressed in terms of percents of active member payroll, will remain approximately level from generation to generation of Missouri citizens, and which
- (2) when combined with present assets and future investment returns, will be sufficient to meet the present and future financial obligations of MPERS.

In order to measure progress toward this fundamental objective, MPERS has annual actuarial valuations performed. The valuations (i) measure present financial position, and (ii) establish contribution rates that provide for the current cost and level percent-of-payroll amortization of unfunded actuarial liabilities over a reasonable period. An actuarial valuation was performed based upon benefit conditions, data and assumptions as of June 30, 2009. This valuation indicates that contribution rates for the period beginning July 1, 2010 that are at least equal to the calculated contributions rates will meet the Board's financial objective. The calculated contribution rates are 39.46% of payroll for the 7,701 Non-Uniformed employees and 49.53% of payroll for the 1,083 Uniformed patrol employees.

The actuarial valuations are based upon financial and participant data (which is prepared by retirement system staff) assumptions regarding future rates of investment return and inflation, and rates of retirement, turnover, death, and disability among MPERS' members and their beneficiaries. We review the data for internal and year-to-year consistency as well as general reasonableness prior to its use in the actuarial valuations. It is also summarized and tabulated for the purpose of analyzing trends. The assumptions were adopted by the Board of Trustees and were based upon actual experience of MPERS during the period July 1, 1999 to June 30, 2004. The funding policy was adopted by the Board at the September 17, 2009 Board meeting and was designed to better address the unfunded retiree liability. Assets were valued using a three-year smoothing method. The assumptions and methods utilized in this valuation, in our opinion, meet the parameters established by the Governmental Accounting Standards Board Statement No. 25.

The current benefit structure is outlined in the Introductory Section. We provided the information used in the supporting schedules in the Actuarial Section and the Schedules of Funding Progress in the Financial Section, as well as the employer contribution rates shown in the Schedule of Employer Contributions in the Financial Section.



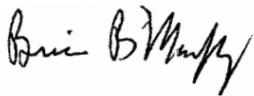
# Actuary's Certification Letter

The Retirement Board  
Missouri Department of Transportation  
and Highway Patrol Employees' Retirement System  
October 13, 2009  
Page 2

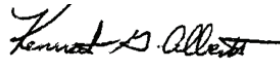
The signing actuaries are Members of the American Academy of Actuaries (M.A.A.A.) as indicated, and meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

**Based upon the valuation results, it is our opinion that the Missouri Department of Transportation and Highway Patrol Employees' Retirement System continues to operate in accordance with actuarial principles of level percent-of-payroll financing. It is important to the well-being of the system that it continues to receive contributions at the actuarially determined levels. It is also important to continue to monitor both the total funded status and the funded status of the retiree liabilities to ensure that the funding policy is consistent with the expected life span of the respective unfunded obligation.**

Respectfully submitted,



Brian B. Murphy, F.S.A., E.A., M.A.A.A.



Kenneth G. Alberts

Gabriel Roeder Smith & Company



# Summary of Actuarial Methods and Assumptions

Valuation Date .....	June 30, 2009
Actuarial Cost Method .....	Entry Age Normal
Amortized Method .....	Closed, level percent of payroll
Remaining Amortization Period .....	24 years (Single equivalent period)
Asset Valuation Method .....	3-year smoothing
Actuarial Assumptions:	
Investment Rate of Return .....	8.25%
Projected Salary Increase .....	3.75% to 11.75%
Cost-of-Living Adjustments .....	2.6% Compound
Includes Wage Inflation at.....	3.75%

An actuarial valuation is based upon an actuarial cost method, an asset valuation method, and actuarial assumptions. These methods and assumptions are chosen by the Board of Trustees after consultation with the Actuary and other advisors.

The actuarial cost method is called the Entry Age Actuarial Cost Method. This method is consistent with the Board's level percent of payroll funding objective. With this method, the level percent of payroll is determined that will fund a member's retirement benefit over the member's entire working lifetime, from date of hire (Entry Age) to date of exit from the active member population. Differences in the past between assumed and actual experience become part of unfunded actuarial accrued liabilities and are amortized with level percent of payroll contributions. This cost method was first used in the **June 30, 1999** valuation.

The asset valuation method is a three year smoothed market value method in which assumed investment return is recognized immediately each year and differences between actual and assumed investment return are phased in over a closed three year period. This asset valuation method is intended to give recognition to the long term accuracy of market values while filtering out and dampening short term market swings. This method was first used in the **June 30, 1999** valuation.

The actuarial assumptions used in producing the valuation fall into two broad classes: economic assumptions, and demographic assumptions. Economic assumptions refer to long term rates of investment return, wage growth, covered population growth, and inflation. Demographic assumptions refer to retirement rates, turnover rates, disability rates, merit and seniority pay increases, and mortality rates. The current assumptions are based upon a 1999-2004 study of experience of the MPERS. The assumptions are reviewed from time to time to keep them reasonably current with expected experience.

## **Economic Assumptions**

**The investment return rate** used in making the valuation was 8.25% per year, compounded annually (net after administrative expenses). This rate of return is not the assumed real rate of return. The real rate of return over wage inflation is defined to be the portion of investment return which is more than the wage inflation rate. Considering wage inflation recognition of 3.75%, the 8.25% rate translates to an assumed real rate of return over wage inflation of 4.5%. This rate was first used for the **June 30, 2005** valuation.



# Summary of Actuarial Methods and Assumptions

**Pay increase assumptions** for individual active members are shown on page 44. Part of the assumption for each age is for a merit and/or seniority increase, and the other 3.75% recognizes wage inflation. These rates were first used for the **June 30, 2005** valuation.

**Price Inflation** is assumed to be 3.25%. This results in a 2.6% annual COLA assumption. It is assumed that the 2.6% COLA will always be paid.

The Active Member Group size is assumed to remain constant at its present level.

**Total active member payroll** is assumed to increase 3.75% a year, which is the portion of the individual pay increase assumptions attributable to wage inflation. This rate was first used for the **June 30, 2005** valuation.

## **Non Economic Assumptions**

**The mortality table** used to measure retired life mortality was the 1971 Group Annuity Mortality Tables projected to the year 2000 set back 1 year for males and 7 years for females. Related values are shown on page 44. This table was first used for the **June 30, 2000** valuation. Disabled pension mortality was based on PBGC Disabled Mortality tables.

**The probabilities of retirement** for members eligible to retire are shown on page 45. The rates for full retirement were first used in the **June 30, 2005** valuation. The rates for reduced retirement were first used in the **June 30, 2005** valuation. Upon retirement, members are assumed to pick the BackDROP period that when combined with the remaining annuity produces the highest liability.

**The probabilities of disability** for members eligible to retire are shown on page 45. The rates for disability were first used in the **June 30, 2005** valuation.

**The probabilities of withdrawal** from service, death in service and disability are shown for sample ages on pages 43 and 45. The death-in-service and disability rates were first used in the **June 30, 2005** valuation. The withdrawal rates for Uniform members were first used in the **June 30, 2007** valuation. The withdrawal rates for Non-uniform members were first used in the **June 30, 2005** valuation.

**The data about persons now covered and about present assets** was furnished by the System's administrative staff. Although examined for general reasonableness, the data was not audited by the Actuary. Data was furnished as of May 31 and assumed to be statistically equivalent to June 30.

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The actuarial valuation computations were made by or under the supervision of a Member of the American Academy of Actuaries (M.A.A.A.).



# Summary of Actuarial Methods and Assumptions

## Probabilities of Separation From Active Employment Less Than 5 Years of Service

Service	MoDOT, Civilian Patrol and MPERS		Uniformed Patrol	
	Male	Female	Male	Female
0-1	25.00%	18.00%	8.00%	8.00%
1-2	12.00	11.00	6.00	6.00
2-3	7.00	9.00	4.50	4.50
3-4	6.00	7.00	4.00	4.00
4-5	5.00	6.00	4.00	4.00

## Probabilities of Separation From Active Employment More Than 5 Years of Service

Age	MoDOT, Civilian Patrol and MPERS		Uniformed Patrol	
	Male	Female	Male	Female
25	4.70%	6.25%	4.50%	4.50%
30	3.78	5.55	3.78	3.78
35	2.86	4.82	2.22	2.22
40	1.96	3.78	1.20	1.20
45	1.30	3.12	0.82	0.82
50	0.98	3.00	0.46	0.46
55	0.66	1.50	0.18	0.18
60	0.21	0.50	0.10	0.10



# Summary of Actuarial Methods and Assumptions

## Salary Increase Assumptions For an Individual Member

### Age Based Salary Scale

Age	MoDOT, Civilian Patrol and MPERS			Uniformed Patrol		
	Merit & Seniority	Base (Economic)	Increase Next Year	Merit & Seniority	Base (Economic)	Increase Next Year
20	8.00%	3.75%	11.75%	6.00%	3.75%	9.75%
25	5.66	3.75	9.41	5.40	3.75	9.15
30	3.30	3.75	7.05	3.50	3.75	7.25
35	2.05	3.75	5.80	1.75	3.75	5.50
40	1.45	3.75	5.20	1.10	3.75	4.85
45	0.95	3.75	4.70	0.64	3.75	4.39
50	0.60	3.75	4.35	0.37	3.75	4.12
55	0.38	3.75	4.13	0.29	3.75	4.04
60	0.30	3.75	4.05	0.00	3.75	3.75

## Joint Life Retirement Values (8.25% Interest)

Sample Attained Ages	Present Value of \$1 Monthly for Life		Future Life Expectancy (years)	
	Men	Women	Men	Women
50	\$136	\$139	29.17	34.67
55	131	134	24.82	30.06
60	124	127	20.70	25.67
65	115	119	16.82	21.50
70	105	109	13.32	17.57
75	93	97	10.36	13.99
80	80	84	7.83	10.91

The present values shown above are for illustrative purposes only and include a 50% survivor benefit but do not include the value of future post-retirement increases. Males are assumed to be 3 years older than their spouses.



# Summary of Actuarial Methods and Assumptions

## Percent of Eligible Active Members Retiring Next Year (Rates of Retirement)

Age	MoDOT, Civilian Patrol and MPERS				Uniformed Patrol	
	Male		Female		Male	Female
	Normal	Early	Normal	Early	Normal	Normal
50	18.0%	0.0%	18.0%	0.0%	50.0%	50.0%
55	18.0	4.0	18.0	4.0	25.0	25.0
60	18.0	4.0	20.0	4.0	100.0	100.0
65	45.0	0.0	40.0	0.0	100.0	100.0
70	100.0	0.0	100.0	0.0	100.0	100.0

## Percent of Members Becoming Disabled at the Indicated Age (Rates of Disability)

Age	MoDOT, Civilian Patrol and MPERS		Uniformed Patrol	
	Male	Female	Male	Female
25	0.01%	0.06%	0.03%	0.03%
30	0.01	0.07	0.03	0.03
35	0.06	0.10	0.04	0.04
45	0.21	0.29	0.09	0.09
50	0.36	0.45	0.15	0.15
55	0.66	0.54	0.00	0.00
60+	0.00	0.00	0.00	0.00



# Summary of Member Data Included In Valuations

	Non-Uniformed				
	Civilian Patrol	MoDOT and MPERS	Non-Uniformed Total	Uniformed Patrol	Grand Total
<b>Active Members</b>					
Closed Plan	609	3,694	4,303	751	5,054
Year 2000 Plan	513	2,885	3,398	323	3,730
Total Active Members	1,122	6,579	7,701	1,083	8,784
<i>Total Active Members Prior Year</i>	1,125	6,404	7,529	1,070	8,599
<b>Retiree -- Regular Pensioners</b>					
Closed Plan	413	3,792	4,205	777	5,982
Year 2000 Plan	335	2,006	2,341	1	2,342
Total Regular Pensioners	748	5,798	6,546	778	7,324
Self Insured Disability Pensioners	6	78	84	3	87
Fully Insured Disability Pensioners	4	55	59	0	59
Terminated Vested Members	212	1,364	1,576	157	1,733
<b>Total</b>	<b>2,092</b>	<b>13,874</b>	<b>15,966</b>	<b>2,021</b>	<b>17,987</b>
Active Member Valuation Payroll	\$41,561,449	\$268,487,978	\$310,049,427	\$ 67,602,818	\$ 377,652,245
Active Member Valuation Payroll Prior Year	\$40,220,687	\$261,235,905	\$301,456,592	\$ 67,968,061	\$ 369,424,653
Unfunded Actuarial Accrued Liability	N/A	N/A	\$1,260,133,816	\$381,763,169	\$1,641,896,985

Member data for actuarial valuation is as of May 31, 2009



# Active Members By Attained Age and Years of Service

## MoDOT and MPERS

### Closed Plan

Attained Age	Counted by Complete Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
Under 20	-	-	-	-	-	-	-	0	\$ 0
20-24	-	-	-	-	-	-	-	0	0
25-29	-	19	10	-	-	-	-	29	1,002,425
30-34	-	76	141	4	-	-	-	221	9,327,216
35-39	-	57	264	145	7	-	-	473	21,981,105
40-44	-	69	192	259	134	15	-	669	31,606,613
45-49	-	52	184	198	271	177	41	923	44,325,773
50-54	-	31	137	141	211	126	146	792	37,521,818
55-59	-	22	78	102	104	44	67	417	18,904,853
60-64	-	10	31	38	29	10	25	143	6,539,919
65-69	-	2	7	3	2	2	2	18	741,898
70+	-	-	1	3	-	1	4	9	434,895
<b>Totals</b>	<b>0</b>	<b>338</b>	<b>1,045</b>	<b>893</b>	<b>758</b>	<b>375</b>	<b>285</b>	<b>3,694</b>	<b>\$172,386,515</b>

Average Age 47.3 years  
 Average Service 18.4 years  
 Average Pay \$46,667

### Year 2000 Plan

Attained Age	Counted by Complete Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
Under 20	14	-	-	-	-	-	-	14	\$ 222,854
20-24	217	2	-	-	-	-	-	219	6,425,591
25-29	367	162	-	-	-	-	-	529	18,270,408
30-34	258	213	-	-	-	-	-	471	16,262,194
35-39	243	184	6	-	-	-	-	433	14,409,452
40-44	230	150	3	2	1	-	-	386	12,033,020
45-49	195	163	1	-	2	-	-	361	11,951,583
50-54	143	102	1	-	-	-	-	246	8,744,269
55-59	84	70	1	1	-	-	-	156	5,154,422
60-64	36	26	-	-	-	-	-	62	2,268,751
65-69	5	2	-	-	-	-	-	7	328,293
70+	-	1	-	-	-	-	-	1	30,626
<b>Totals</b>	<b>1,792</b>	<b>1,075</b>	<b>12</b>	<b>3</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>2,885</b>	<b>\$96,101,463</b>

Average Age 38.5 years  
 Average Service 4.0 years  
 Average Pay \$33,311

Member data for actuarial valuation is as of May 31, 2009



# Active Members By Attained Age and Years of Service

## Uniformed Patrol

### Closed Plan

Attained Age	Counted by Complete Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
Under 20	-	-	-	-	-	-	-	0	\$ 0
20-24	-	-	-	-	-	-	-	0	0
25-29	-	-	-	-	-	-	-	0	0
30-34	-	17	43	-	-	-	-	60	3,373,187
35-39	-	10	161	29	-	-	-	200	12,549,556
40-44	-	5	77	115	11	-	-	208	14,470,969
45-49	-	2	21	38	62	24	-	147	11,223,582
50-54	-	-	4	7	24	37	24	96	7,562,112
55-59	-	-	-	-	1	8	31	40	3,271,092
60-64	-	-	-	-	-	-	-	0	0
65-69	-	-	-	-	-	-	-	0	0
70+	-	-	-	-	-	-	-	0	0
<b>Totals</b>	<b>0</b>	<b>34</b>	<b>306</b>	<b>189</b>	<b>98</b>	<b>69</b>	<b>55</b>	<b>751</b>	<b>\$52,450,498</b>

**Average Age** 43.4 years  
**Average Service** 18.2 years  
**Average Pay** \$69,841

### Year 2000 Plan

Attained Age	Counted by Complete Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
Under 20	-	-	-	-	-	-	-	0	\$ 0
20-24	54	-	-	-	-	-	-	54	2,072,686
25-29	80	32	-	-	-	-	-	112	5,071,869
30-34	33	70	-	-	-	-	-	103	5,065,809
35-39	9	36	-	-	-	-	-	45	2,124,403
40-44	5	9	-	-	-	-	-	14	630,150
45-49	1	1	-	-	-	-	-	2	86,362
50-54	-	2	-	-	-	-	-	2	101,041
55-59	-	-	-	-	-	-	-	0	0
60-64	-	-	-	-	-	-	-	0	0
65-69	-	-	-	-	-	-	-	0	0
70+	-	-	-	-	-	-	-	0	0
<b>Totals</b>	<b>182</b>	<b>150</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>332</b>	<b>\$15,152,320</b>

**Average Age** 30.5 years  
**Average Service** 4.6 years  
**Average Pay** \$45,640

Member data for actuarial valuation is as of May 31, 2009.



# Active Members By Attained Age and Years of Service

## Civilian Patrol

### Closed Plan

Attained Age	Counted by Complete Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
Under 20	-	-	-	-	-	-	-	0	\$ 0
20-24	-	-	-	-	-	-	-	0	0
25-29	-	1	1	-	-	-	-	2	66,530
30-34	-	5	21	2	-	-	-	28	1,044,934
35-39	-	8	39	12	-	-	-	59	2,485,890
40-44	-	6	43	33	17	5	-	104	4,297,038
45-49	-	8	33	30	35	29	3	138	5,737,777
50-54	-	5	27	22	34	29	22	139	5,999,803
55-59	-	5	22	13	24	15	11	90	3,751,788
60-64	-	1	13	13	11	5	3	46	1,669,620
65-69	-	-	1	1	-	-	-	2	83,692
70+	-	-	-	-	1	-	-	1	30,418
<b>Totals</b>	<b>0</b>	<b>39</b>	<b>200</b>	<b>126</b>	<b>122</b>	<b>83</b>	<b>39</b>	<b>609</b>	<b>\$25,167,490</b>

Average Age 48.8 years  
 Average Service 18.6 years  
 Average Pay \$41,326

### Year 2000 Plan

Attained Age	Counted by Complete Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
Under 20	-	-	-	-	-	-	-	0	\$ 0
20-24	39	2	-	-	-	-	-	41	1,143,236
25-29	69	35	-	-	-	-	-	104	3,571,367
30-34	51	29	-	-	-	-	-	80	2,703,256
35-39	37	28	-	-	-	-	-	65	2,117,273
40-44	39	21	-	-	-	-	-	60	1,902,557
45-49	20	31	-	-	-	-	-	51	1,618,653
50-54	26	19	-	-	-	-	-	45	1,302,895
55-59	14	19	-	-	-	-	-	33	1,012,490
60-64	10	16	-	-	-	-	-	26	801,781
65-69	2	5	-	-	-	-	-	7	195,935
70+	-	1	-	-	-	-	-	1	24,516
<b>Totals</b>	<b>307</b>	<b>206</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>513</b>	<b>\$16,393,959</b>

Average Age 39.4 years  
 Average Service 4.2 years  
 Average Pay \$31,957

Member data for actuarial valuation is as of May 31, 2009.



## Schedule of Active Member Valuation Data

Actuarial Valuation Date	Number of Active Members	Annualized Payroll	Average Pay	Percent Change in Average Pay from Prior Year
2000	9,171	\$312,532,009	\$34,078	4.3%
2001	9,087	327,049,257	35,991	5.6
2002	8,695	312,747,492	35,969	(0.1)
2003	8,892	318,744,192	35,846	(0.3)
2004	9,002	328,210,887	36,460	1.7
2005	9,193	345,695,867	37,604	3.1
2006	9,033	348,614,699	38,593	2.6
2007	8,640	360,842,421	41,764	8.2
2008	8,599	369,424,653	42,961	2.9
2009	8,784	377,652,245	42,993	0.1
<b>Ten-Year Average</b>				<b>2.8%</b>

*Member data for Actuarial valuation is as of May 31, 2009.*



# Solvency Test

The MPERS funding objective is to meet long term benefit promises through contributions that remain approximately level from year to year as a percent of member payroll. If the contributions to the System are level in concept and soundly executed, the System will **pay all promised benefits when due – the ultimate test of financial soundness.**

**A solvency test** is one means of checking a system's progress under its funding program. In a solvency test for a non-contributory plan, the plan's present assets (cash and investments) are compared with:

- 1) The liabilities for future benefits to present retired lives and
- 2) The liabilities for service already rendered by members.

In a system that has been following the discipline of level percent of payroll financing, the liabilities for future benefits to present

retired lives (liability 1) will be fully covered by present assets (except in rare circumstances). In addition, the liabilities for service already rendered by members (liability 2) will be partially covered by the remainder of present assets. The larger the funded portion of liability 2, the stronger the condition of the system.

The schedule below illustrates the history of liability 2 of the System. Progress on solvency has been negatively impacted by the 2000-2002 investment market.

Valuation Date June 30	(1) Retirees and Beneficiaries	(2) Active and Inactive Members	Present Valuation Assets	Portion of Present Values Covered by Present Assets		
				(1)	(2)	Total
-----Millions-----						
1999	\$1,132	\$921	\$1,243	100%	12%	61%
2000	1,238	951	1,423	100	19	65
2001	1,375	926	1,521	100	16	66
2002 *	1,470	888	1,451	99	0	62
2003	1,555	863	1,364	88	0	56
2004	1,626	867	1,332	82	0	53
2005 *	1,669	958	1,417	85	0	54
2006	1,734	1,007	1,521	88	0	56
2007 *	1,810	1,087	1,686	93	0	58
2008	1,873	1,147	1,784	95	0	59
2009	1,927	1,166	1,471	76	0	47

\* New assumptions adopted



# Derivation of Financial Experience

Actual experience will never coincide exactly with assumed experience (except by coincidence). Gains and losses may offset each other over a period of years, but sizeable year-to-year variations from assumed experience are common. Detail on the derivation of the experience gain (loss) is shown below.

UAAL Beginning of Year (at July 1)	\$1,235,731,501
Normal Cost	49,481,200
Contributions	(123,057,975)
Interest	98,912,807
Net Change in LTD Assets	0
Expected UAAL Before Any Changes	1,261,067,533
Effect of Changes in Assumptions & Methods	0
Expected UAAL After Changes	1,261,067,533
End of Year UAAL (at June 30)	1,641,896,985
Gain/(Loss) for Year	\$(380,829,452)
Gain/(Loss) as a percent of actuarial accrued liabilities at start of year (\$2,740.4 million)	(12.6)%

Valuation Date June 30	Experience Gain (Loss) as % of Beginning Accrued Liability
1999	(7.7)%
2000	(.1)
2001	(9.3)
2002	(4.5)
2003	(5.2)
2004	(2.9)
2005	(1.5)
2006	1.4
2007	1.1
2008	(0.2)
<b>2009</b>	<b>(12.6)%</b>



# Schedule of Retirees and Beneficiaries Added and Removed

Valuation Date	Added to Rolls		Removed from Rolls		Rolls End of Year		Average Annual Allowances	% Increase	
	Number	Annual Allowances	Number	Annual Allowances	Number	Annual Allowances		in Annual Allowance	in Average Annual Allowance
FY2009									
Retirees	292	\$4,125,644	178	\$2,136,578	5,471	\$152,372,034	\$27,851	4.49%	2.31%
Beneficiaries	138	1,134,755	108	622,167	1,863	25,606,266	13,745	7.80%	6.07%
Disabilities	19	0	28	71,381	146	1,529,412	10,475	-11.67%	-6.23%
FY2008									
Retirees	331	\$3,940,198	151	\$1,202,185	5,357	\$145,826,691	\$27,222	4.97%	1.45%
Beneficiaries	113	763,176	92	437,560	1,833	23,753,030	12,959	6.59%	5.37%
Disabilities	21	54,465	32	57,913	155	1,731,521	11,171	-22.63%	-17.14%
FY2007									
Retirees	310	\$3,052,533	157	\$1,373,300	5,177	\$138,917,326	\$26,834	4.87%	1.77%
Beneficiaries	131	51,253	112	617,163	1,812	22,283,555	12,298	8.09%	6.96%
Disabilities	36	0	24	116,307	166	2,237,892	13,481	38.31%	28.31%
FY2006									
Retirees	252	\$3,005,557	166	\$1,477,199	5,024	\$132,465,613	\$26,367	3.89%	1.74%
Beneficiaries	106	715,154	75	381,966	1,793	20,615,839	11,498	7.09%	5.24%
Disabilities	22	170,138	22	106,561	154	1,618,075	10,507	9.70%	8.99%
FY2005									
Retirees	202	\$4,685,700	125	\$2,373,810	4,920	\$127,508,904	\$25,916	3.53%	1.91%
Beneficiaries	106	1,527,938	79	618,487	1,762	19,251,121	10,926	7.95%	6.29%
Disabilities	7	95,296	7	47,561	153	1,474,983	9,640	-1.86%	-1.86%
FY2004									
Retirees	295	\$7,389,209	143	\$2,239,625	4,843	\$123,159,002	\$25,430	5.95%	2.62%
Beneficiaries	114	1,423,712	89	557,685	1,735	17,833,685	10,279	7.64%	6.08%
Disabilities	9	87,586	11	36,938	153	1,502,868	9,823	-19.77%	-18.72%
FY2003									
Retirees	249	\$6,319,872	101	\$2,062,469	4,691	\$116,243,532	\$24,780	6.24%	2.89%
Beneficiaries	121	1,627,820	91	650,474	1,710	16,568,589	9,689	9.58%	7.66%
Disabilities	20	180,624	22	43,088	155	1,873,102	12,085	36.86%	38.62%
FY2002									
Retirees	303	\$8,089,425	134	\$2,193,413	4,543	\$109,416,172	\$24,085	7.59%	3.59%
Beneficiaries	119	1,768,570	76	369,662	1,680	15,120,376	9,000	11.53%	8.68%
Disabilities	17	168,853	41	180,231	157	1,368,640	8,717	-11.88%	1.59%
FY2001									
Retirees	531	\$13,546,408	111	\$1,630,433	4,374	\$101,693,353	\$23,250	21.66%	9.97%
Beneficiaries	108	1,447,292	112	412,086	1,637	13,556,769	8,281	10.62%	10.89%
Disabilities	6	70,722	87	1,001,360	181	1,553,154	8,581	-28.20%	3.93%
FY2000									
Retirees	323	\$9,406,709	138	\$1,665,215	3,954	\$83,590,958	\$21,141	10.72%	4.62%
Beneficiaries	102	1,255,689	61	257,043	1,641	12,255,372	7,468	10.72%	7.28%
Disabilities	8	107,281	2	13,047	262	2,163,190	8,256	-4.69%	-0.32%

\*Most new disabilities are covered / paid by the Standard Insurance Co.  
Data of this chart is as of June 30, 2009.



# Summary of Plan Provisions \*

## Comparison of the Closed Plan and the Year 2000 Plan For the Year Ended June 30, 2009

Plan Provision	Closed Plan	Year 2000 Plan
<b>Membership Eligibility</b>	<ul style="list-style-type: none"> <li>Members who work in a position normally requiring at least 1,040 hours of work a year.</li> </ul>	<ul style="list-style-type: none"> <li>Members hired for the first time on or after July 1, 2000, in a position requiring at least 1,040 hours of work a year.</li> <li>Members who left state employment prior to becoming vested and return to work on or after July 1, 2000, in a position normally requiring at least 1,040 hours of work a year.</li> </ul>
<b>Normal Retirement Eligibility</b>	<ul style="list-style-type: none"> <li>Age 65 &amp; active with 4 years of service.</li> <li>Age 65 with 5 years of service.</li> <li>Age 60 with 15 years of service.</li> <li>"Rule of 80"/minimum age 48.</li> <li>Age 55 with 4 years of service. (active uniformed members only)</li> <li>Age 60 – mandatory with 5 years of service. (active uniformed members only)</li> </ul>	<ul style="list-style-type: none"> <li>Age 62 with 5 years of service.</li> <li>"Rule of 80" / minimum age 48.</li> <li>Age 60 - mandatory with 5 years of service (active uniformed members only).</li> </ul>
<b>Early Retirement Eligibility</b>	<ul style="list-style-type: none"> <li>Age 55 with 10 years creditable service.</li> </ul>	<ul style="list-style-type: none"> <li>Age 57 with 5 years creditable service.</li> </ul>
<b>Benefit</b> Life Benefit	1.6% x FAP** x service (Base benefit is increased by 33 1/3% for uniformed patrol members only.)	1.7% x FAP** x service
Temporary Benefit	Not available.	0.8% x FAP** x service (until age 62 – only if retiring under "Rule of 80").
<b>Vesting</b>	5 years of service.	5 years of service.
<b>COLA</b> (Cost-of-Living Allowance)	<ul style="list-style-type: none"> <li>If hired before August 28, 1997, annual COLA is a minimum of 4%, maximum 5%, based on 80% of the increase in the CPI-U over the previous year, up to a maximum of 65% of original benefit.</li> <li>After 65% cap is reached, annual COLA increase will be equal to 80% of the change in the CPI-U, with a maximum of 5%.</li> <li>If hired after August 28, 1997, annual COLAs will be equal to 80% of the increase in the CPI-U, maximum 5%, with no guaranteed minimum.</li> </ul>	<ul style="list-style-type: none"> <li>Annual COLA is equal to 80% of the change in the CPI-U with a maximum rate of 5%.</li> </ul>
<b>Survivor Benefit</b> (Death before retirement) Non Duty-Related Death	<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse calculated using the Joint &amp; 100% survivor option or 80% of the member's life income annuity paid to eligible children under age 21.</li> <li>If at least 3, but less than 5, years of service the survivor benefit is calculated using 25% of the member's base benefit calculated as if the member retired on their date of death.</li> </ul>	<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse calculated using the Joint &amp; 100% survivor option or 80% of the member's life income annuity paid to eligible children under age 21.</li> </ul>
Duty-Related Death	<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse or children no less than 50% of final average pay (no service requirement).</li> </ul>	<ul style="list-style-type: none"> <li>Survivor benefit to eligible spouse or children no less than 50% of final average pay (no service requirement).</li> </ul>
<b>Optional Forms of Payment</b>	Payment options include: <ul style="list-style-type: none"> <li>Life Income Annuity</li> <li>Unreduced Joint &amp; 50% Survivor</li> <li>Joint &amp; 100% Survivor</li> <li>60 or 120 Guaranteed Payments</li> <li>BackDROP</li> </ul>	Payment options include: <ul style="list-style-type: none"> <li>Life Income Annuity</li> <li>Unreduced Joint &amp; 50% Survivor</li> <li>Joint &amp; 100% Survivor</li> <li>120 or 180 Guaranteed Payments</li> <li>BackDROP</li> </ul>
<b>Disability</b>	Long-Term Disability and Work-Related Disability	Long-Term Disability and Work-Related Disability

\*This summary describes the plan provisions of the Revised Statutes of Missouri (RSMo), as amended, that governed the programs, which MPERS administered during the period covered by this report. It does not overrule any applicable statute or administrative rule and, in the event of a conflict, the applicable statute or rule would apply. The Year 2000 Plan was effective July 1, 2000. A complete summary is available at the MPERS office.

\*\*Final Average Pay – average of highest 36 consecutive months of pay.



# Legislative Changes

Governor Jay Nixon signed House Bill 210 into law on June 24, 2009. This legislation allows state retirees to authorize contributions to the Missouri State Employees' Charitable Campaign to be deducted from their monthly retirement benefit payments.

There were no benefit increases enacted in fiscal year 2009.





# Focused on PEOPLE



Statistical Section



**MoDOT and Patrol Employees' Retirement System**  
**Changes in Net Assets, Last Ten Fiscal Years**

## Changes in Net Assets

<u>Additions</u>	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Employer Contributions	\$70,191,993	\$81,155,196	\$77,440,468	\$76,806,313	\$86,724,914	102,240,145	\$111,271,679	\$121,264,532	123,335,151	\$122,599,301
Other Contributions	0	197,823	640,254	2,584,257	842,665	364,680	271,038	529,926	1,192,527	444,000
Net Investment Income	52,025,236	(32,956,576)	(88,252,400)	36,526,003	180,910,907	144,641,068	212,206,238	283,549,424	(42,915,886)	(426,265,311)
Other Income	0	0	0	0	33,851	31,104	41,542	31,580	31,546	33,571
<b>Total Additions to Plan Net Assets</b>	<b>122,217,229</b>	<b>48,396,443</b>	<b>(10,171,678)</b>	<b>115,916,573</b>	<b>268,512,337</b>	<b>247,276,997</b>	<b>323,790,497</b>	<b>405,375,462</b>	<b>81,643,338</b>	<b>(303,188,439)</b>
<u>Deductions</u>										
Benefit Payments	95,402,854	111,985,064	133,498,818	144,334,345	154,987,027	157,742,337	164,997,406	175,970,479	185,801,362	192,013,250
Administrative Expenses	665,941	835,215	1,334,555	1,451,855	1,639,133	1,916,592	1,927,594	2,120,764	2,371,215	2,339,501
<b>Total Deductions from Plan Net Assets</b>	<b>96,068,795</b>	<b>112,820,279</b>	<b>134,833,373</b>	<b>145,786,200</b>	<b>156,626,160</b>	<b>159,658,929</b>	<b>166,925,000</b>	<b>178,091,243</b>	<b>188,172,577</b>	<b>194,352,751</b>
<b>Change in Net Assets</b>	<b>\$26,148,434</b>	<b>\$(64,423,836)</b>	<b>\$(145,005,051)</b>	<b>\$(29,869,627)</b>	<b>\$111,886,177</b>	<b>\$87,618,068</b>	<b>\$156,865,497</b>	<b>\$227,284,219</b>	<b>\$(106,529,239)</b>	<b>\$(497,541,190)</b>

# Benefit Payments By Type

**MoDOT and Patrol Employees' Retirement System  
Benefit Payments by Type, Last Ten Fiscal Years**

Type of Benefit	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
<b><u>Age and Service Benefits:</u></b>										
Retiree and Survivor Annuity Payments	\$94,593,110	\$111,189,631	\$121,786,745	\$131,689,970	\$138,767,316	\$145,118,809	\$151,647,091	\$159,145,368	\$167,654,271	175,588,494
BackDROP Payments	0	0	10,771,393	11,696,862	14,318,622	8,880,770	9,721,059	13,177,432	14,631,932	12,859,452
<b><u>Disability Benefits:</u></b>										
Long Term Disability	519,744	490,433	515,680	537,513	555,434	475,948	386,026	288,908	223,501	179,239
Work-Related Disability <sup>(1)</sup>	0	0	0	0	633,299	718,248	747,723	703,159	728,507	692,043
Normal Disability <sup>(1)</sup>	0	0	0	0	302,356	295,776	244,208	220,490	207,417	186,349
Insured Disability <sup>(2)</sup>	0	0	0	0	0	1,837,786	1,796,299	1,905,122	1,835,734	1,847,673
<b>Death Benefits</b>	290,000	305,000	425,000	410,000	410,000	415,000	455,000	530,000	520,000	660,000
<b>Total Benefits</b>	<u>\$95,402,854</u>	<u>\$111,985,064</u>	<u>\$133,498,818</u>	<u>\$144,334,345</u>	<u>\$154,987,027</u>	<u>\$157,742,337</u>	<u>\$164,997,406</u>	<u>\$175,970,479</u>	<u>\$185,801,362</u>	<u>192,013,250</u>

<sup>(1)</sup> Prior to FY04, work-related and normal disabilities were reported as retiree benefits.

<sup>(2)</sup> Outsourced LTD program began 07/01/04.



# Schedule of Retired Members By Type of Benefit

## All Members\*

Amount of Monthly Benefit	Type of Benefit						Total Recipients
	Retirement		Disability			Survivor	
	Normal	Early	Normal	Work-Related	Long-Term		
1 - 200	18	42	5	0	1	169	235
201 - 400	103	119	3	1	13	279	518
401 - 600	130	113	3	0	11	260	517
601 - 800	174	49	4	1	3	213	444
801 - 1000	210	34	1	3	1	143	392
1001 - 1200	211	16	4	3	0	144	378
1201 - 1400	281	9	1	3	1	108	403
1401 - 1600	281	4	1	6	0	85	377
1601 - 1800	327	4	0	4	0	67	402
1801 - 2000	346	3	0	7	0	68	424
2001 - 2200	320	1	0	1	0	57	379
2201 - 2400	332	1	0	0	0	46	379
2401 - 2600	322	0	0	3	0	40	365
2601 - 2800	299	1	0	1	0	42	343
2801 - 3000	211	0	0	1	0	20	232
> 3000	1,510	0	0	0	0	122	1,632
Totals	5,075	396	22	34	30	1,863	7,420

## MoDOT

Amount of Monthly Benefit	Type of Benefit					Survivor	Total Recipients
	Retirement		Disability				
	Normal	Early	Normal	Work-Related	Long-Term		
1 - 200	15	30	5	0	1	157	208
201 - 400	75	99	3	1	12	260	450
401 - 600	93	99	3	0	8	235	438
601 - 800	135	43	4	1	3	186	372
801 - 1000	173	28	1	3	1	125	331
1001 - 1200	184	15	4	3	0	127	333
1201 - 1400	241	8	1	3	1	84	338
1401 - 1600	245	4	1	6	0	66	322
1601 - 1800	281	4	0	4	0	58	347
1801 - 2000	300	3	0	3	0	51	357
2001 - 2200	265	1	0	1	0	32	299
2201 - 2400	272	1	0	0	0	32	305
2401 - 2600	286	0	0	3	0	27	316
2601 - 2800	268	1	0	0	0	32	301
2801 - 3000	184	0	0	1	0	17	202
> 3000	862	0	0	0	0	95	957
Totals	3,879	336	22	29	26	1,584	5,876

\* This chart includes six retirement system staff retirees



# Schedule of Retired Members By Type of Benefit (continued)

## Uniformed Patrol

Amount of Monthly Benefit	Type of Benefit						Total Recipients
	Retirement		Disability			Survivor	
	Normal	Early	Normal	Work-Related	Long-Term		
1 - 200	0	0	0	0	0	1	1
201 - 400	1	0	0	0	0	3	4
401 - 600	13	0	0	0	0	7	20
601 - 800	7	0	0	0	0	12	19
801 - 1000	4	0	0	0	0	7	11
1001 - 1200	1	0	0	0	0	4	5
1201 - 1400	2	0	0	0	0	9	11
1401 - 1600	3	0	0	0	0	11	14
1601 - 1800	1	0	0	0	0	6	7
1801 - 2000	6	0	0	2	0	15	23
2001 - 2200	4	0	0	0	0	21	25
2201 - 2400	2	0	0	0	0	11	13
2401 - 2600	1	0	0	0	0	13	14
2601 - 2800	3	0	0	1	0	8	12
2801 - 3000	9	0	0	0	0	3	12
> 3000	569	0	0	0	0	24	593
Totals	626	0	0	3	0	155	784

## Civilian Patrol

Amount of Monthly Benefit	Type of Benefit						Total Recipients
	Retirement		Disability			Survivor	
	Normal	Early	Normal	Work-Related	Long-Term		
1 - 200	2	12	0	0	0	11	25
201 - 400	27	20	0	0	1	16	64
401 - 600	24	14	0	0	3	18	59
601 - 800	32	6	0	0	0	15	53
801 - 1000	32	6	0	0	0	11	49
1001 - 1200	26	1	0	0	0	13	40
1201 - 1400	38	1	0	0	0	15	54
1401 - 1600	33	0	0	0	0	8	41
1601 - 1800	45	0	0	0	0	3	48
1801 - 2000	40	0	0	2	0	2	44
2001 - 2200	51	0	0	0	0	4	55
2201 - 2400	58	0	0	0	0	3	61
2401 - 2600	35	0	0	0	0	0	35
2601 - 2800	27	0	0	0	0	2	29
2801 - 3000	18	0	0	0	0	0	18
> 3000	76	0	0	0	0	3	79
Totals	564	60	0	2	4	124	754



# Schedule of Average Monthly Benefit Payments

## MoDOT

### By Years of Service

Retired In Fiscal Year		0 - 10	11 - 15	16 - 20	21 - 25	26 - 30	31 - 35	36 - 40	41 +
2000	<b>Average Benefit</b>	<b>\$297</b>	<b>597</b>	<b>1,044</b>	<b>1,141</b>	<b>2,058</b>	<b>2,484</b>	<b>2,865</b>	<b>3,955</b>
	Average FAP	\$1,614	2,360	2,651	2,210	2,902	3,359	3,613	4,178
	<b>Current Retirees</b>	<b>2</b>	<b>9</b>	<b>11</b>	<b>16</b>	<b>52</b>	<b>65</b>	<b>55</b>	<b>38</b>
2001	<b>Average Benefit</b>	<b>\$305</b>	<b>493</b>	<b>741</b>	<b>1,232</b>	<b>2,064</b>	<b>2,607</b>	<b>2,774</b>	<b>3,852</b>
	Average FAP	\$2,051	1,774	1,564	2,276	2,836	3,421	3,706	4,341
	<b>Current Retirees</b>	<b>18</b>	<b>19</b>	<b>23</b>	<b>29</b>	<b>73</b>	<b>146</b>	<b>61</b>	<b>25</b>
2002	<b>Average Benefit</b>	<b>\$424</b>	<b>618</b>	<b>774</b>	<b>1,172</b>	<b>2,208</b>	<b>2,726</b>	<b>2,821</b>	<b>2,899</b>
	Average FAP	\$2,216	2,627	2,447	2,603	3,122	3,737	4,102	4,041
	<b>Current Retirees</b>	<b>1</b>	<b>16</b>	<b>13</b>	<b>29</b>	<b>56</b>	<b>61</b>	<b>31</b>	<b>19</b>
2003	<b>Average Benefit</b>	<b>\$365</b>	<b>481</b>	<b>753</b>	<b>1,152</b>	<b>2,112</b>	<b>2,637</b>	<b>2,724</b>	<b>3,289</b>
	Average FAP	\$2,299	2,130	2,060	2,379	2,951	3,442	3,809	4,088
	<b>Current Retirees</b>	<b>13</b>	<b>9</b>	<b>12</b>	<b>21</b>	<b>47</b>	<b>36</b>	<b>31</b>	<b>14</b>
2004	<b>Average Benefit</b>	<b>\$353</b>	<b>597</b>	<b>979</b>	<b>1,271</b>	<b>2,135</b>	<b>2,830</b>	<b>2,492</b>	<b>3,378</b>
	Average FAP	\$3,034	2,691	2,816	2,564	2,871	3,539	3,623	4,642
	<b>Current Retirees</b>	<b>10</b>	<b>15</b>	<b>19</b>	<b>23</b>	<b>66</b>	<b>59</b>	<b>26</b>	<b>8</b>
2005	<b>Average Benefit</b>	<b>\$375</b>	<b>457</b>	<b>738</b>	<b>1,439</b>	<b>2,380</b>	<b>2,500</b>	<b>2,988</b>	<b>3,045</b>
	Average FAP	\$2,782	1,964	2,555	2,625	3,372	3,304	3,988	3,937
	<b>Current Retirees</b>	<b>11</b>	<b>19</b>	<b>19</b>	<b>9</b>	<b>50</b>	<b>22</b>	<b>19</b>	<b>7</b>
2006	<b>Average Benefit</b>	<b>\$355</b>	<b>585</b>	<b>817</b>	<b>1,369</b>	<b>2,359</b>	<b>2,625</b>	<b>3,473</b>	<b>3,216</b>
	Average FAP	\$3,046	2,769	2,715	3,056	3,394	3,379	4,083	4,086
	<b>Current Retirees</b>	<b>14</b>	<b>16</b>	<b>18</b>	<b>24</b>	<b>59</b>	<b>33</b>	<b>11</b>	<b>7</b>
2007	<b>Average Benefit</b>	<b>\$265</b>	<b>497</b>	<b>728</b>	<b>1,532</b>	<b>2,343</b>	<b>2,928</b>	<b>3,161</b>	<b>2,949</b>
	Average FAP	\$2,218	2,409	2,475	3,033	3,378	3,764	3,970	3,938
	<b>Current Retirees</b>	<b>23</b>	<b>28</b>	<b>21</b>	<b>30</b>	<b>68</b>	<b>38</b>	<b>15</b>	<b>7</b>
2008	<b>Average Benefit</b>	<b>\$266</b>	<b>451</b>	<b>813</b>	<b>1,711</b>	<b>2,342</b>	<b>3,017</b>	<b>2,725</b>	<b>3,353</b>
	Average FAP	\$2,261	2,425	2,988	3,391	3,431	3,920	3,513	4,463
	<b>Current Retirees</b>	<b>30</b>	<b>30</b>	<b>26</b>	<b>37</b>	<b>60</b>	<b>52</b>	<b>18</b>	<b>5</b>
2009	<b>Average Benefit</b>	<b>\$295</b>	<b>591</b>	<b>938</b>	<b>1,814</b>	<b>2,382</b>	<b>2,782</b>	<b>3,244</b>	<b>3,438</b>
	Average FAP	\$2,545	3,046	3,472	3,496	3,537	3,690	3,920	4,539
	<b>Current Retirees</b>	<b>28</b>	<b>18</b>	<b>15</b>	<b>42</b>	<b>43</b>	<b>47</b>	<b>16</b>	<b>5</b>

FAP = Final Average Pay



# Schedule of Average Monthly Benefit Payments (continued)

## Uniformed Patrol

### By Years of Service

Retired In Fiscal Year		0-10	11-15	16-20	21-25	26-30	31-35	36-40	41+
2000	Average Benefit	\$0	0	0	2,204	4,491	4,888	5,418	0
	Average FAP	\$0	0	0	3,053	4,792	4,867	4,735	0
	Current Retirees	0	0	0	2	2	15	8	0
2001	Average Benefit	\$0	592	0	0	3,585	4,802	5,645	6,120
	Average FAP	\$0	801	0	0	4,286	4,849	5,341	5,352
	Current Retirees	0	3	0	0	6	11	4	1
2002	Average Benefit	\$0	755	1,903	3,455	4,076	4,790	5,263	6,814
	Average FAP	\$0	2,564	3,580	4,566	4,784	5,339	5,373	5,624
	Current Retirees	0	1	1	1	9	12	10	1
2003	Average Benefit	\$395	513	0	0	3,658	4,720	4,682	0
	Average FAP	\$1,051	1,514	0	0	4,378	5,247	4,929	0
	Current Retirees	2	1	0	0	12	6	7	0
2004	Average Benefit	\$612	426	1,551	0	3,426	4,192	4,647	5,171
	Average FAP	\$2,295	992	3,000	0	4,372	4,844	5,171	5,078
	Current Retirees	1	1	1	0	8	8	6	1
2005	Average Benefit	\$0	652	1,333	2,644	3,545	3,792	5,229	5,571
	Average FAP	\$0	2,386	2,772	3,870	4,807	4,856	5,362	5,158
	Current Retirees	0	2	1	2	5	6	4	1
2006	Average Benefit	\$413	0	1,357	0	3,351	4,082	4,638	0
	Average FAP	\$1,628	0	3,007	0	4,884	5,214	5,004	0
	Current Retirees	1	0	2	0	6	10	1	0
2007	Average Benefit	\$551	699	923	0	3,410	4,467	5,000	0
	Average FAP	\$2,292	2,260	2,475	0	5,287	5,684	5,514	0
	Current Retirees	1	3	1	0	5	12	5	0
2008	Average Benefit	\$448	0	1,717	0	3,975	4,039	4,560	0
	Average FAP	\$1,898	0	3,969	0	6,098	5,253	5,575	0
	Current Retirees	1	0	1	0	5	10	3	0
2009	Average Benefit	\$0	667	0	1,887	3,921	4,056	4,447	5,558
	Average FAP	\$0	2,557	0	3,711	6,140	5,741	5,565	5,974
	Current Retirees	0	1	0	2	6	16	6	1

FAP = Final Average Pay



# Schedule of Average Monthly Benefit Payments (continued)

## Civilian Patrol

### By Years of Service

Retired In Fiscal Year		0-10	11-15	16-20	21-25	26-30	31-35	36-40	41+
2000	<b>Average Benefit</b>	<b>\$324</b>	<b>668</b>	<b>785</b>	<b>1,206</b>	<b>1,709</b>	<b>2,429</b>	<b>2,915</b>	<b>2,930</b>
	Average FAP	\$1,676	2,784	1,968	2,535	2,807	3,161	3,785	2,785
	<b>Current Retirees</b>	<b>2</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>9</b>	<b>6</b>	<b>1</b>
2001	<b>Average Benefit</b>	<b>\$298</b>	<b>643</b>	<b>885</b>	<b>1,218</b>	<b>2,013</b>	<b>2,435</b>	<b>2,758</b>	<b>2,940</b>
	Average FAP	\$1,844	1,083	1,936	1,939	2,911	3,158	3,522	3,176
	<b>Current Retirees</b>	<b>5</b>	<b>1</b>	<b>1</b>	<b>2</b>	<b>13</b>	<b>23</b>	<b>8</b>	<b>2</b>
2002	<b>Average Benefit</b>	<b>\$196</b>	<b>339</b>	<b>1,021</b>	<b>1,021</b>	<b>2,124</b>	<b>2,195</b>	<b>2,142</b>	<b>0</b>
	Average FAP	\$1,767	1,907	2,477	2,129	2,827	3,215	3,209	0
	<b>Current Retirees</b>	<b>2</b>	<b>5</b>	<b>1</b>	<b>5</b>	<b>7</b>	<b>5</b>	<b>4</b>	<b>0</b>
2003	<b>Average Benefit</b>	<b>\$431</b>	<b>451</b>	<b>698</b>	<b>1,303</b>	<b>2,157</b>	<b>2,007</b>	<b>2,105</b>	<b>2,217</b>
	Average FAP	\$2,221	1,405	2,425	2,490	2,720	2,855	3,611	3,001
	<b>Current Retirees</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>3</b>	<b>10</b>	<b>15</b>	<b>3</b>	<b>3</b>
2004	<b>Average Benefit</b>	<b>\$255</b>	<b>451</b>	<b>587</b>	<b>1,136</b>	<b>1,864</b>	<b>2,395</b>	<b>2,360</b>	<b>3,510</b>
	Average FAP	\$1,985	2,055	2,025	2,353	2,768	3,021	3,440	5,259
	<b>Current Retirees</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>4</b>	<b>10</b>	<b>8</b>	<b>6</b>	<b>1</b>
2005	<b>Average Benefit</b>	<b>\$247</b>	<b>403</b>	<b>698</b>	<b>993</b>	<b>2,702</b>	<b>3,625</b>	<b>1,783</b>	<b>3,406</b>
	Average FAP	\$1,298	1,841	2,240	1,780	3,285	4,044	2,522	4,422
	<b>Current Retirees</b>	<b>2</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>7</b>	<b>8</b>	<b>1</b>	<b>1</b>
2006	<b>Average Benefit</b>	<b>\$169</b>	<b>450</b>	<b>607</b>	<b>1,098</b>	<b>2,536</b>	<b>2,870</b>	<b>3,083</b>	<b>0</b>
	Average FAP	\$2,080	2,066	2,003	2,537	3,343	3,439	3,189	0
	<b>Current Retirees</b>	<b>4</b>	<b>5</b>	<b>2</b>	<b>11</b>	<b>7</b>	<b>12</b>	<b>3</b>	<b>0</b>
2007	<b>Average Benefit</b>	<b>\$289</b>	<b>462</b>	<b>517</b>	<b>1,392</b>	<b>2,520</b>	<b>2,628</b>	<b>2,465</b>	<b>0</b>
	Average FAP	\$1,853	1,924	2,082	2,491	3,600	3,275	2,868	0
	<b>Current Retirees</b>	<b>5</b>	<b>5</b>	<b>5</b>	<b>6</b>	<b>8</b>	<b>13</b>	<b>2</b>	<b>0</b>
2008	<b>Average Benefit</b>	<b>\$240</b>	<b>513</b>	<b>794</b>	<b>1,242</b>	<b>1,834</b>	<b>2,943</b>	<b>3,741</b>	<b>0</b>
	Average FAP	\$2,186	2,609	2,551	2,658	2,753	3,756	4,151	0
	<b>Current Retirees</b>	<b>6</b>	<b>7</b>	<b>7</b>	<b>5</b>	<b>8</b>	<b>12</b>	<b>1</b>	<b>0</b>
2009	<b>Average Benefit</b>	<b>\$242</b>	<b>335</b>	<b>510</b>	<b>0</b>	<b>2,573</b>	<b>2,671</b>	<b>2,172</b>	<b>1,966</b>
	Average FAP	\$2,206	1,874	2,135	0	3,690	3,333	2,865	2,679
	<b>Current Retirees</b>	<b>5</b>	<b>6</b>	<b>3</b>	<b>0</b>	<b>11</b>	<b>9</b>	<b>3</b>	<b>2</b>

FAP = Final Average Pay



# Schedule of Average Monthly Benefit Payments (continued)

## MPERS

### By Years of Service

Retired In Fiscal Year		0-10	11-15	16-20	21-25	26-30	31-35	36-40	41+
1999	Average Benefit	\$118	0	0	0	0	0	0	0
	Average FAP	\$915	0	0	0	0	0	0	0
	Current Retirees	1	0	0	0	0	0	0	0
2003	Average Benefit	\$0	0	0	0	2,774	0	0	0
	Average FAP	\$0	0	0	0	3,232	0	0	0
	Current Retirees	0	0	0	0	1	0	0	0
2006	Average Benefit	\$0	0	0	0	0	3,316	0	0
	Average FAP	\$0	0	0	0	0	4,178	0	0
	Current Retirees	0	0	0	0	0	1	0	0
2007	Average Benefit	\$0	0	985	0	0	0	0	0
	Average FAP	\$0	0	3,081	0	0	0	0	0
	Current Retirees	0	0	1	0	0	0	0	0
2009	Average Benefit	\$0	0	0	0	0	4,332	0	6,632
	Average FAP	\$0	0	0	0	0	5,922	0	9,989
	Current Retirees	0	0	0	0	0	1	0	1

NOTE: There were no retirements during the years not shown above.

FAP = Final Average Pay

## Active Member Data

### Schedule of Participating Employers

	MoDOT		Patrol		MPERS		Total	
	Employees	%	Employees	%	Employees	%	Employees	%
2000	7,008	76.33	2,170	23.63	4	0.04	9,182	100
2001	6,969	76.53	2,133	23.43	4	0.04	9,106	100
2002	6,590	75.70	2,106	24.19	10	0.11	8,706	100
2003	6,716	75.50	2,169	24.39	10	0.11	8,895	100
2004	6,848	76.07	2,143	23.81	11	0.12	9,002	100
2005	6,980	76.15	2,174	23.72	12	0.13	9,166	100
2006	6,839	75.91	2,159	23.96	12	0.13	9,010	100
2007	6,459	74.76	2,168	25.10	12	0.14	8,639	100
2008	6,376	74.30	2,192	25.55	13	0.15	8,581	100
2009	6,601	74.90	2,199	24.95	13	0.15	8,813	100

Data for this chart is as of June 30, 2009.



# Active Member Data

## For the Year Ended June 30, 2009

### By Age

#### Closed Plan

Age	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 21	0	0	0	0	0
21-25	0	0	0	0	0
26-30	61	49	6	5	1
31-35	389	268	40	81	0
36-40	823	532	60	228	3
41-45	981	687	108	185	1
46-50	1,228	950	137	141	0
51-55	904	695	124	81	4
56-60	474	360	89	25	0
61-65	126	93	33	0	0
66 +	20	19	1	0	0
<b>Total</b>	<b>5,006</b>	<b>3,653</b>	<b>598</b>	<b>746</b>	<b>9</b>
<b>Average Age</b>		<b>47</b>	<b>48</b>	<b>43</b>	<b>43</b>

#### Year 2000 Plan

Age	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 21	35	34	1	0	0
21-25	445	321	54	70	0
26-30	788	552	113	122	1
31-35	636	470	70	96	0
36-40	508	409	69	28	2
41-45	460	386	61	12	1
46-50	423	372	49	2	0
51-55	270	221	48	1	0
56-60	159	126	33	0	0
61-65	74	53	21	0	0
66 +	9	4	5	0	0
<b>Total</b>	<b>3,807</b>	<b>2,948</b>	<b>524</b>	<b>331</b>	<b>4</b>
<b>Average Age</b>		<b>38</b>	<b>39</b>	<b>30</b>	<b>37</b>



# Active Member Data

For the Year Ended June 30, 2009

## By Years of Service

### Closed Plan

Years of Service	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 01	0	0	0	0	0
01-05	0	0	0	0	0
06-10	721	595	68	57	1
11-15	1,510	998	188	321	3
16-20	1,079	801	125	152	1
21-25	997	760	122	113	2
26-30	435	310	65	59	1
31-35	226	157	26	42	1
36-40	30	24	4	2	0
41-45	6	6	0	0	0
46 +	2	2	0	0	0
<b>Total</b>	<b>5,006</b>	<b>3,653</b>	<b>598</b>	<b>746</b>	<b>9</b>
<b>Average Service</b>		<b>18</b>	<b>18</b>	<b>18</b>	<b>19</b>

### Year 2000 Plan

Years of Service	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 01	781	686	70	25	0
01-05	1,915	1,453	285	174	3
06-10	1,099	798	168	132	1
11-15	11	10	1	0	0
16-20	1	1	0	0	0
21-25	0	0	0	0	0
26-30	0	0	0	0	0
31-35	0	0	0	0	0
36-40	0	0	0	0	0
1-45	0	0	0	0	0
46 +	0	0	0	0	0
<b>Total</b>	<b>3,807</b>	<b>2,948</b>	<b>524</b>	<b>331</b>	<b>4</b>
<b>Average Service</b>		<b>3</b>	<b>4</b>	<b>4</b>	<b>3</b>



# Terminated Vested Member Data

## For the Year Ended June 30, 2009

### By Age

#### Closed Plan

Age	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 21	0	0	0	0	0
21-25	0	0	0	0	0
26-30	16	14	2	0	0
31-35	117	91	17	8	1
36-40	289	196	30	63	0
41-45	359	273	41	45	0
46-50	392	317	55	20	0
51-55	294	245	34	15	0
56-60	105	90	14	1	0
61-65	18	12	6	0	0
66 +	0	0	0	0	0
<b>Total</b>	<b>1,590</b>	<b>1,238</b>	<b>199</b>	<b>152</b>	<b>1</b>
<b>Average Age</b>		<b>46</b>	<b>46</b>	<b>42</b>	<b>32</b>

#### Year 2000 Plan

Age	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
< 21	0	0	0	0	0
< 21	0	0	0	0	0
21-25	1	1	0	0	0
26-30	28	22	4	2	0
31-35	47	41	3	3	0
36-40	27	23	3	1	0
41-45	15	13	2	0	0
46-50	13	12	1	0	0
51-55	12	12	0	0	0
56-60	4	3	1	0	0
61-65	0	0	0	0	0
66 +	0	0	0	0	0
<b>Total</b>	<b>147</b>	<b>127</b>	<b>14</b>	<b>6</b>	<b>0</b>
<b>Average Age</b>		<b>38</b>	<b>37</b>	<b>32</b>	<b>0</b>



# Terminated Vested Member Data

## For the Year Ended June 30, 2009

### By Years of Service

#### Closed Plan

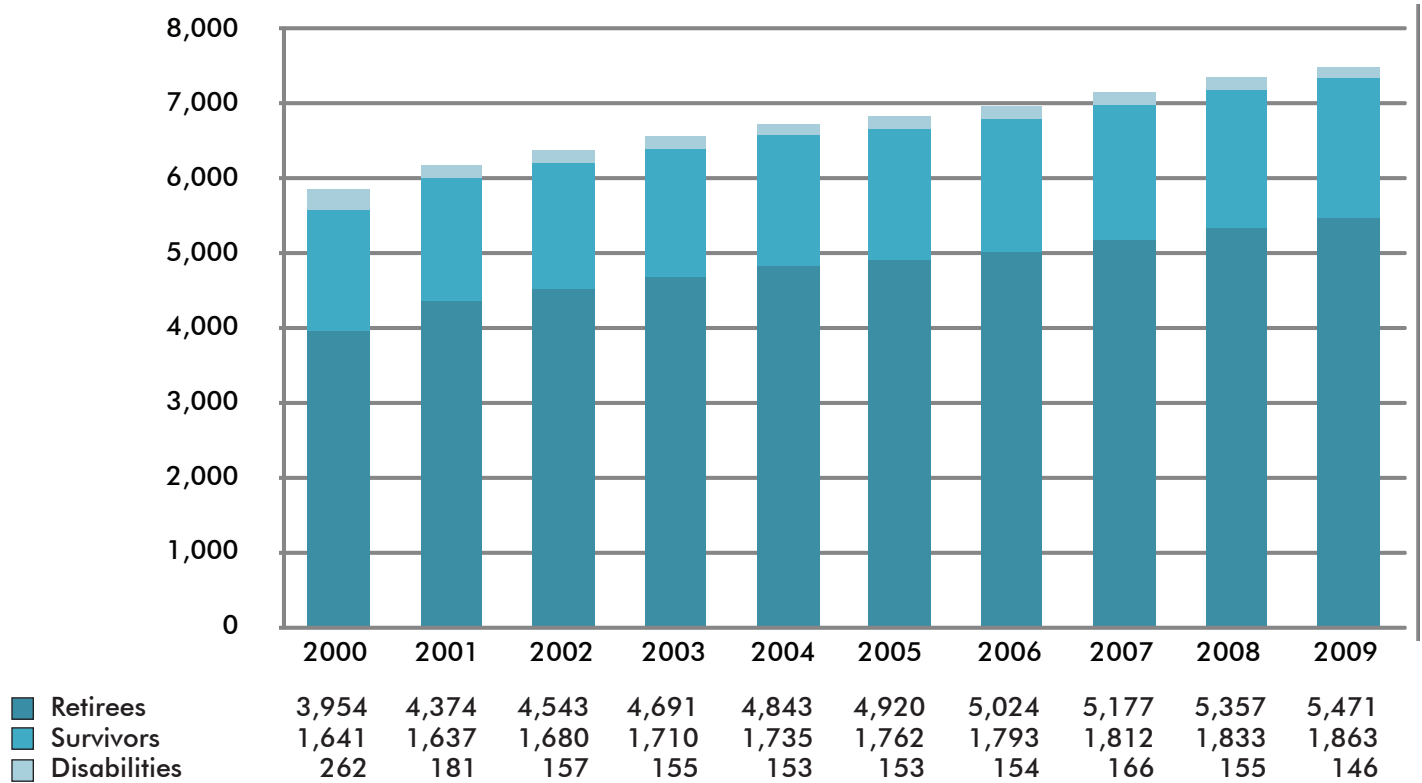
Years of Service	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
01-05	0	0	0	0	0
06-10	161	132	23	5	1
11-15	466	327	55	84	0
16-20	483	393	58	32	0
21-25	298	250	33	15	0
26-30	98	68	17	13	0
31-35	63	50	10	3	0
36-40	19	16	3	0	0
41-45	2	2	0	0	0
46 +	0	0	0	0	0
<b>Total</b>	<b>1,590</b>	<b>1,238</b>	<b>199</b>	<b>152</b>	<b>1</b>
<b>Average Service</b>		<b>18</b>	<b>18</b>	<b>17</b>	<b>9</b>

#### Year 2000 Plan

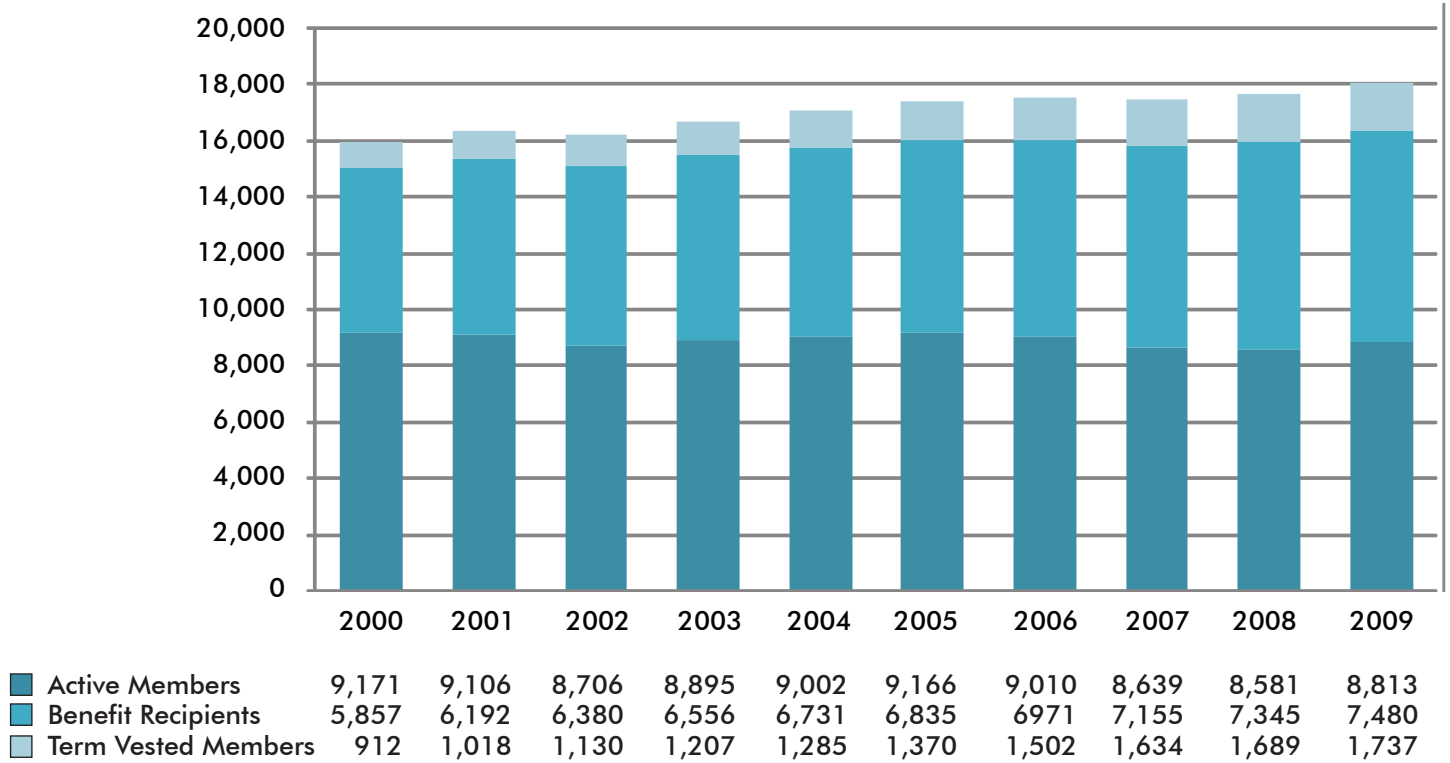
Years of Service	Total	MoDOT	Civilian Patrol	Uniformed Patrol	MPERS
01-05			1	0	0
06-10	144	124	13	6	0
11-15	3	3	0	0	0
16-20	0	0	0	0	0
21-25	0	0	0	0	0
26-30	0	0	0	0	0
31-35	0	0	0	0	0
36-40	0	0	0	0	0
41-45	0	0	0	0	0
46 +	0	0	0	0	0
<b>Total</b>	<b>147</b>	<b>127</b>	<b>14</b>	<b>6</b>	<b>0</b>
<b>Average Service</b>		<b>7</b>	<b>8</b>	<b>7</b>	<b>0</b>



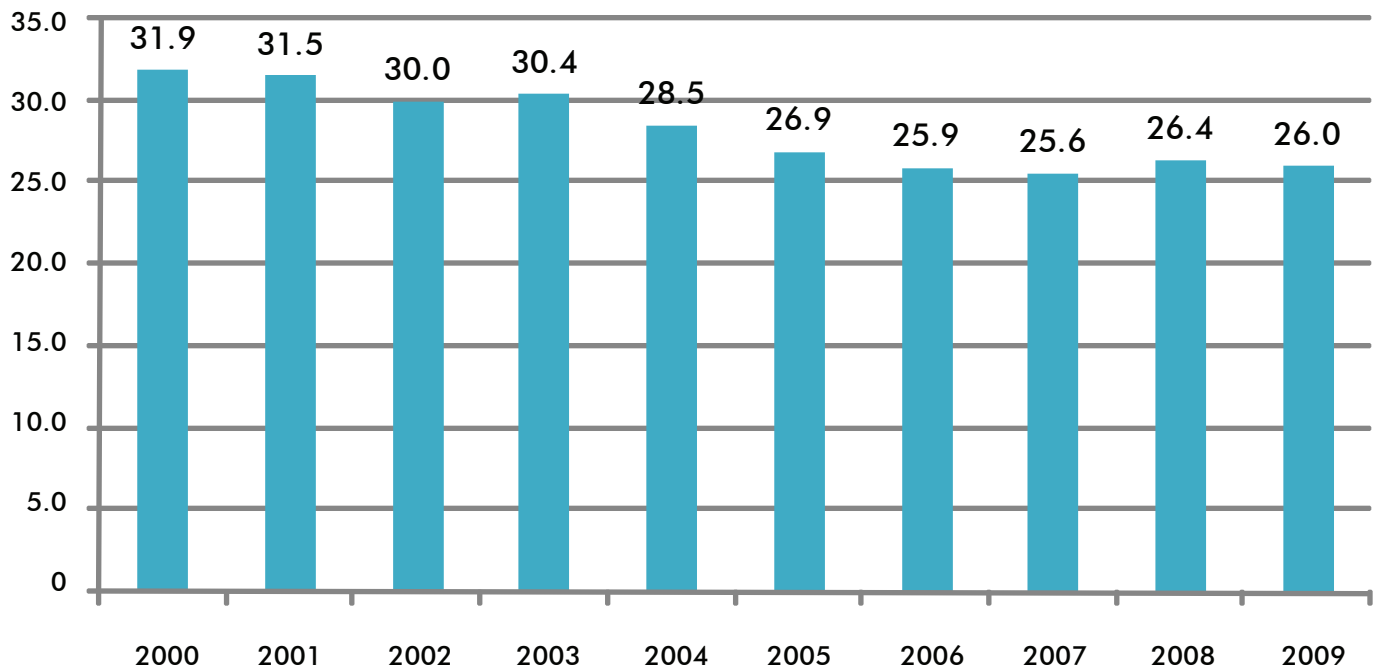
## Benefit Recipients



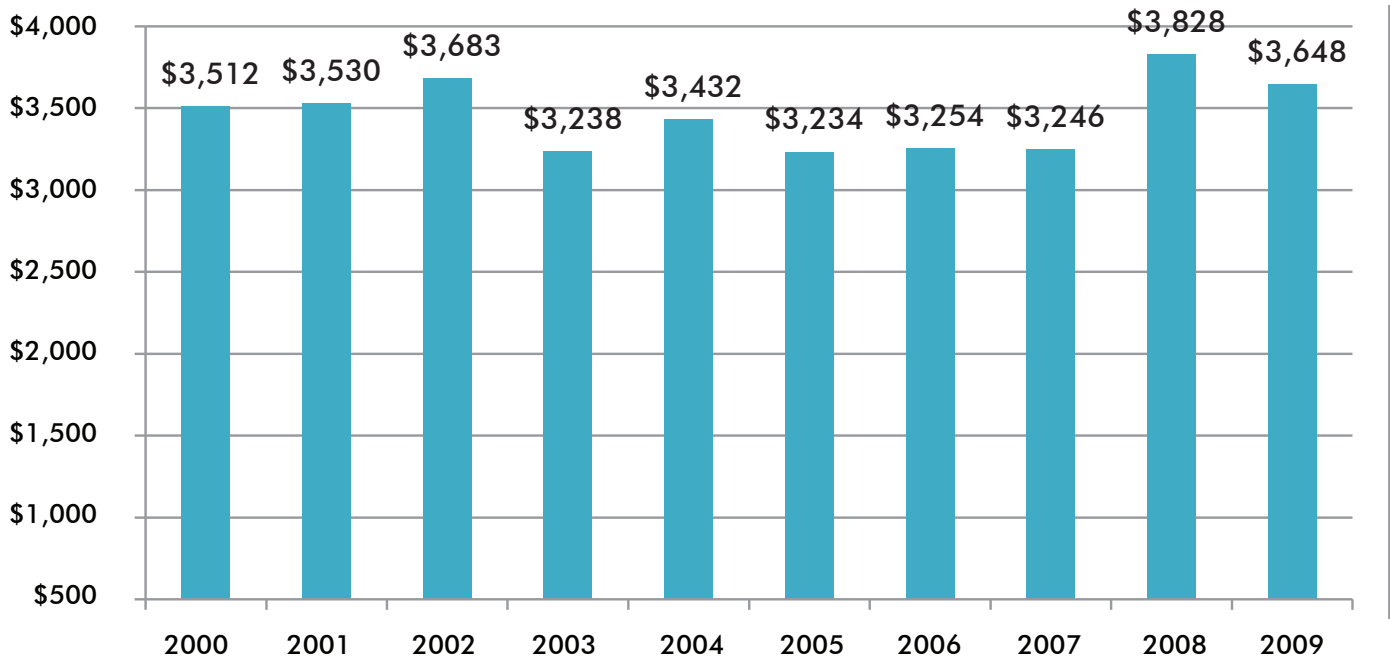
## Membership Distribution



## Average Years of Service for New Retirees



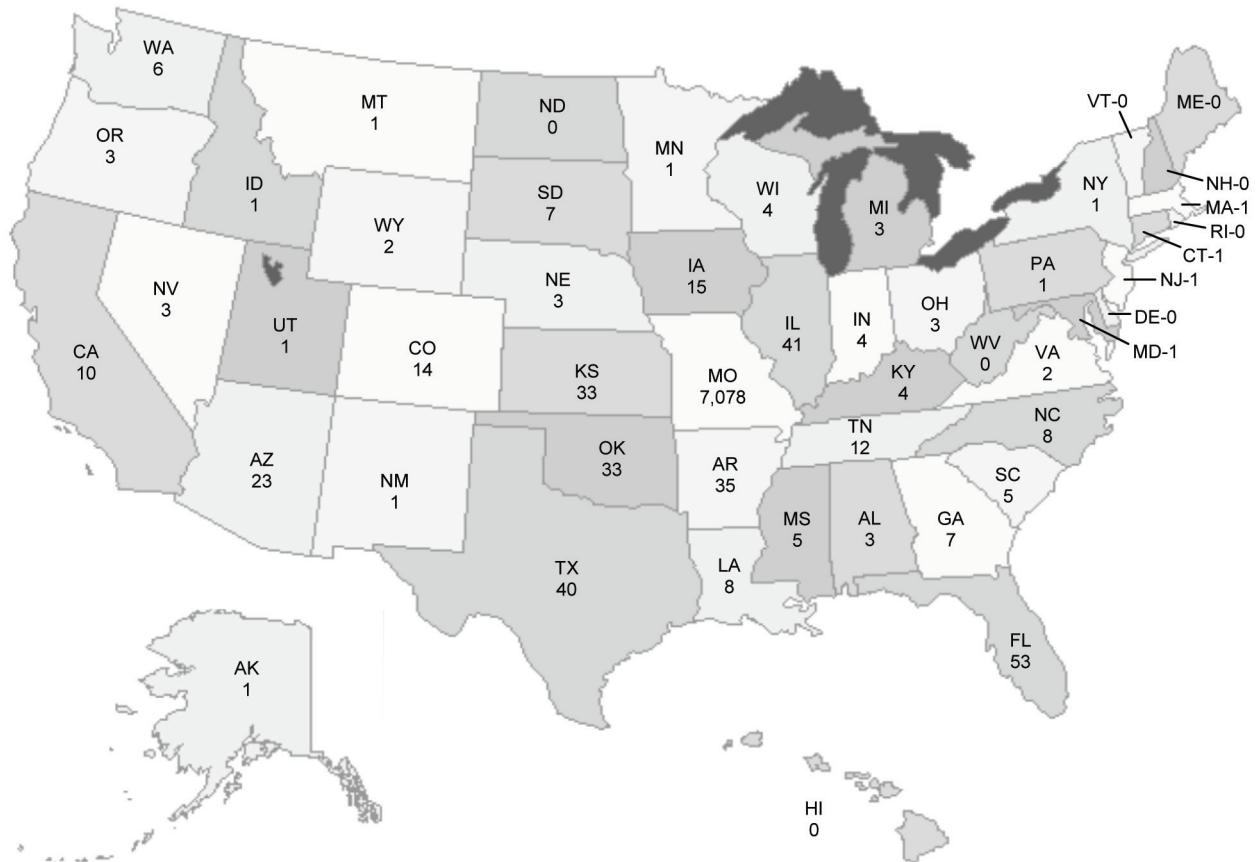
## Final Average Pay for New Retirees



# Location of MPERS Retirees

For the Year Ended June 30, 2009

This map represents the demographic distribution of retirees by state.



1 Retiree resides in England

